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The JOURNAL of Property Management

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Are you missing *any back issues?*

SEVEN years ago, June 1934, to be exact, The JOURNAL OF PROPERTY MANAGEMENT was launched by The Institute of Real Estate Management of the National Association of Real Estate Boards. Since then, six complete volumes have been published, have gone into the office libraries of many leading property managers in the United States and of some in foreign countries. Other individuals and institutions whose income depended partially or entirely upon sound real estate management have likewise been among JOURNAL subscribers who began with Volume I.

Nevertheless, the subscription list of the JOURNAL has grown considerably during the period its 24 quarterly issues have gone into the mails. Consequently, many of its subscribers today, perhaps you among them, do not have complete files of important numbers of The JOURNAL.

Upon checking our supply, we find that with the exception of Volume I, No. 4, and Volume III, No. 1, all other issues are on hand in varying amounts, although only 2 or 3 copies remain of some numbers.

We feel that all who want to do so should have an opportunity to complete office and library files at no extra cost. For this reason, The JOURNAL offers you at the regular price of $1.25 per copy whatever back issues you choose to order.

In the back of this June, 1941, issue, you will find a complete Index to Volume VI. All feature articles and authors who have appeared in previous volumes of The JOURNAL *are listed in a new* JOURNAL *bibliography which has just come off the press. The* JOURNAL *will be glad to send you a copy of this bibliography free upon request.*

The Journal of Property Management

Published by The Institute of Real Estate Management

• 22 West Monroe Street, Chicago

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AS IT LOOKS to the EDITORS

Special Educational Issue

FOR a long time a need has been felt for some kind of text and reference book which would set forth in one volume the fundamental principles of real estate management. This need has been expressed by seasoned property managers as well as by beginners in the field. It has also been voiced by the staffs of real estate offices: by brokers, appraisers, home and industrial builders, and others whose activities are interrelated and interwoven with real estate management. Owners of real estate, too, have been seeking such a volume. In this respect, individual owners as well as the executive and administrative personnel of real estate-owning and -supervising banks, trust companies, insurance companies, and mortgage houses have made known their wishes.

The JOURNAL is happy to present with this issue just such a textbook. In the pages that follow, you will find ten excellent articles. Combined they represent the minimum basic essentials which every person interested in sound, practical property management should know. Written by men who themselves operate some of the most influential and prosperous management offices in the United States, these articles should prove stepping stones to those who aspire to improve their management and increase their income.

It should be noted that none of these feature articles express the official opinion of The Institute of Real Estate Management. Each article reflects merely the personal opinion of the author.

By devoting the June issue mainly to the ten articles on "The Fundamental Principles of Real Estate Management," The JOURNAL is able to give every subscriber, new or old, a copy of this valuable text and reference book without adding to the subscription price. Yet the additional work, text matter, and expense involved in producing this issue multiplies its worth several times. However, because of the increased cost of production, it is necessary to charge $2.00 per copy for all extra copies which are ordered for distribution to staff, clients, or for other purposes.

A limited quantity of extra copies of this issue have been printed. Orders are beginning already to come in. We have tried to anticipate the demand, but such matters can never be definitely ascertained. So it is recommended that orders for additional copies be sent in promptly if delivery is to be assured.

One hundred questions covering the field of basic essentials in real estate management will be found on pages 415, 416, and 417 of this issue. May we suggest that you turn to these questions either before you begin to read the main articles in this issue or when you have finished reading them.

Presenting a New Landscape

WITH summer here, we felt it was about time to modernize The JOURNAL a bit. Applying the principles of landscape architecture, we have tried "to arrange the effects of natural scenery over a given area so as to produce the best esthetic effect, considering the use to which the area is put."

We felt the broad sweep of lawn should be opened up with a "walk." So instead of the wide one-column measure, all JOURNAL articles from now on will be set in two columns. We believe you will agree that in this change both beauty and utility have been served. The grass (the body type) remains as before, handsome and clear cut. The edging (margin) has been somewhat filled in, since the type page is now an inch wider and one-half inch deeper than before. Thus some empty space has been put to good use. As for the shrubbery (headings and subheadings), this has been harmonized into two main families; and, for increased contrast, legibility, and attractiveness, straight and slanting species are used, of heavy and medium weight, and in various sizes. The inside paper stock remains the same. The cover however, which is new and might be likened to a flower bed, will appear in a different color combination each issue. Thus it will reflect the change in seasons.

The name, as you have noticed, has also been changed. The JOURNAL, since its inception, has been striving to serve *all* who are interested in the profession of property management. Thus it is felt that the name The JOURNAL of PROPERTY MANAGEMENT is truly more representative of the JOURNAL's service and purpose than the more restrictive title, The Journal of Certified Property Managers.

We believe with this issue, The JOURNAL has taken another step forward in serving better its readers. We know, however, that we can always improve. And no one can help us to do that more intelligently and with greater benefit to all our subscribers than you. So please write us at any time you have any suggestions. We shall always be glad to hear from you.

Putting Our House In Order

SUPERVISION and regulation is the theme of government and industry today. When regulatory measures were originally instituted by the government, business did not take kindly to the idea. Now most business men have decided that it is better for them to put their own houses in order rather than have the government perform this function for them. Witness the changes in the past few years in the marketing of securities, employee relations, stockholder

and customer relations, and the change in the type and status of directors.

Just as industry has a duty to the public so do the so-called *service* organizations, included in which category is the business of real estate management. Some constructive steps toward fulfilling this obligation have been undertaken in the past few years as the real estate fraternity have gradually awakened. The formation of various institutes such as The Institute of Real Estate Management and the American Institute of Real Estate Appraisers under the sponsorship of the National Association of Real Estate Boards is indicative of the acceptance by Realtors of responsibility on a national basis. Although we, in the real estate management business, have formed professional bodies, and as a result have improved our management technique through contacts and exchange of ideas, we are still in the process of laying down rules of professional conduct, and owe it to ourselves, and the public, to have such reputations in our business conduct that the public will have the utmost confidence when dealing with us.

Regulation from within, with teeth to enforce, is part of the future of the real estate business. A good many states have real estate license laws, but these relate chiefly to the buying, selling, and mortgaging of real estate. We of the management profession should promulgate sufficient rules among ourselves so that it will never be necessary for either national or state governments to give consideration to licensing real estate managers.

The old concept of let the buyer or lessee beware is a thing of the past. Clear and clean cut relations with owners, tenants, and the public are the order of the day. This seeking out of more responsibility will have its material benefits over a period of time, so let's push for better management, more informed management, and management regulated from within by the leaders of the profession.

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The basic objectives which every manager of real property should seek to attain are set forth herein.

Objectives of Management

By *Harry Grant Atkinson*

THE MANAGER of real property is constantly facing pressing details. From every side, day in and day out, his attention is challenged by things that need to be acted upon: leaking faucets, broken window panes, fussy tenants, showing apartments, planning office layouts, adjusting taxes, training employees, decorating jobs, buying coal, repairing boilers, and hundreds of other little jobs that take up time and eat up energy.

Unless he keeps a clear head, unless he understands clearly what his basic objectives are, and unless he has a workable plan for systematizing his activities, he is apt to get lost in detail work and miss entirely his primary functions as a manager of real property.

Fundamentally, the property manager is faced by *two* major groups of problems. The first group constitutes his *administrative* problems; and the second group, his *executive* problems. As an *administrator,* he must understand basic objectives and formulate appropriate policies to guide his actions in achieving these objectives. As an *executive,* he must actively direct suitable management programs based upon administrative policies so as to attain the basic objectives. The administrator is the planner. The executive is the doer.

Administrative Problems

The administrative problems of the property manager fall into two subgroups. One of these subgroups embraces the four primary interests of the *owner;* the other, the four primary interests of the *tenant.*

Objectives of the Owner. The owner's primary interests are:

1. The preservation or safeguarding of his capital investment
2. The securing of the greatest possible net return
3. The possibility of an enhancement of the value of his property
4. His pride of ownership.

All other interests that he may have in his property are subordinate to these four primary interests. Out of these primary interests all other interests grow and are each one but a detailed phase of one or more of the basic objectives of ownership. This appears to be true, regardless of the type of real estate involved—whether a single-family dwelling, an apartment building, a hotel, an office building, a farm, or any other type of real property.

The First Four Principles

We may say, then, that the First principle of property management is the development of policies and activities that will preserve the owner's investment intact and safe from loss. The

Second principle is the development of policies and activities that will secure for the owner the greatest possible net return on the capital he has invested in the property. The Third principle is the development of policies and activities that will tend, if possible, to produce an enhancement of the value of the property. And the Fourth principle is the development of policies and activities that will tend to build prestige and good will for the property and thereby add to or preserve the owner's pride of ownership.

Everything that the property manager does is directly or indirectly related to one or more of these four primary interests of the owner. If he fails in any degree as a successful manager it is because he has failed to keep these basic objectives clearly in mind or has been unable or has neglected to serve them adequately.

Objectives of the Tenant. The owner's four basic objectives, however, constitute only one half of the property manager's administrative problems. The tenant, too, has four basic objectives, and these constitute the other half of the manager's administrative problems. These primary interests of the tenant are:

1. Safety and security
2. Comfort and convenience
3. Peace and freedom from annoyance
4. Maintenance of his standard of living (pride of occupancy).

It appears that all tenants have these same four primary interests regardless of the type of real property or the class of tenant involved. If the tenant finds that there is danger to his security or safety in the property, he will not stay. He will not renew his lease. He will move out. If he does not get the comforts and conveniences in the property that he can get for approximately the same rent in another property equally as well located, he will likewise not stay in the property. He will move to the property where the comforts and conveniences that he wants are available for his enjoyment. If he does not secure peace of mind and freedom from annoyances in the property, these he will also seek elsewhere, and he will move to them as soon as he can find them available at a price he can afford to pay. And fourthly, if the property proves to be below his standard of living, if he is ashamed of his quarters in the presence of friends or customers or clients, he will not stay in the property any longer than is necessary to find better quarters within his ability to pay.

And, if the tenant does move out for any one or more of these reasons, the owner's primary interests are jeopardized. All four of them. None of the owner's basic objectives can be attained without tenants. There must be income to preserve the investment, to get a net return, to enhance value, to sustain pride of ownership. Without tenants there can be no income. And there is likely to be no tenants unless the property and the management adequately serve the four basic housing objectives that are sought by all tenants.

The Second Four Principles

Let us say, then, that the Fifth principle of real estate management is the development of policies, facilities, and activities that insure tenants of the property in getting security and safety of person, health, and personal property. The Sixth principle is the develop-

ment of policies, facilities, and activities that will bring the tenant the maximum comfort and convenience within his ability to pay. The Seventh principle is the development of policies, facilities, and activities that will afford the tenant peace of mind and freedom from annoyances. And the Eighth principle is the development of policies, facilities, and activities that will enable the tenant to maintain his standard of living.

These four basic objectives of the owner and the four basic objectives of the tenant constitute eight indispensable component parts of any income producing property. They fit together like the cogs of two wheels in the same machine. Unless they mesh, the property suffers and will not function.

It is the job of the *administrator* to formulate policies and plans that will bring these eight basic objectives into proper balance with each other. It is the job of the *executive* to carry out these plans and see to it that each one of the eight objectives is achieved.

With this brief review of the administrative principles of real estate management, let us turn our attention to the executive principles.

Executive Problems

The property manager is faced by two major groups of executive problems. Everything that he does as an executive can be classified under one or the other of these two headings: (1) the *development* of the greatest possible income at the least possible cost; and (2) the *maintaining* of the greatest possible income at the least possible cost.

The Development of Income. There are two major subproblems to solve in the development of income: (a) preparations for renting; and (b) selling or leasing the rentable units.

Six different steps are involved in the solution of the first of these subproblems. They may be outlined as follows:

a) Preparations for renting
  (1) Neighborhood analysis
    (a) Population factors
    (b) Status and trends in land uses
  (2) Property analysis
    (a) Inventory of improvements
    (b) Analysis of physical conditions
  (3) Highest and best use
    (a) Location factors
    (b) Character and degree of demand
    (c) Functional conformity
  (4) Market analysis
    (a) Supply and demand factors
    (b) Unit supply comparison
    (c) How the property fits the market
    (d) Type and character of tenancy
    (e) Rent trends
  (5) Ownership analysis
    (a) Income requirements
    (b) Cash status
    (c) Attitude toward the property
    (d) Alternate possibilities
  (6) The rent schedule and budget
    (a) The base-unit
    (b) Plus and minus factors
    (c) The preliminary budget.

The Ninth Principle

A thorough and competent job of management requires the manager to give careful attention to all such items

as are outlined above. He must review all data pertaining to these items that are already in his possession. He must gather all additional pertinent data that may be needed. He must analyze these data, and then take whatever action may be necessary to put the property in proper physical condition to match the market. In all these activities he must be guided by a carefully prepared budget. To spend too much money is to destroy part of the net income that could be secured and to jeopardize the owner's investment. To spend too little is to fail to meet the fundamental requirement of the prospective tenants and to run the danger of not being able to rent the property at the best rates obtainable. Let us say, then, that the Ninth principle of real estate management is to put the property into proper physical condition to attract the highest possible rentals without incurring costs that jeopardize the primary interests of the owner.

The second major subproblem in the development of income is the sale of the space or the renting of the property. This involves three important steps that might be outlined in the following way:

b) Renting the property
  (1) Contacting prospects
    (a) Isolation of the territory in which prospects may be found
    (b) Securing inquiries
      i) Advertising
      ii) Personal canvass
  (2) Qualifying prospects
    (a) Social conformity
    (b) Economic status
    (c) Credit standing
  (3) Making the sale
    (a) Showing the property
    (b) Technique of renting.

The second major subproblem in the development of income usually gets more attention from the property manager than the first problem does. The renting of property is important all right, but no more important than any other phase of the management program — since maximum results cannot be secured unless every phase of the program is handled thoroughly and efficiently. Renting activities, however, must not be slighted. Maximum rents will not be secured by chance. Careful plans must be made in order to reach the right prospects and skillful selling must be done to turn them into a stable tenancy. Here, too, the manager must watch costs. If he spends too much in advertising and other sales costs, he wipes out the net return. If he spends too little, he may not get suitable tenants promptly, and thus suffer loss through vacancies.

The Tenth Principle

Perhaps we can say that the Tenth principle of real estate management is the renting of the property to suitable tenants without loss of time and at a cost that will not jeopardize the owner's primary interests.

Maintaining Income. The second main group of executive problems which the property manager faces is the group involved in *maintaining* income. These problems may be classified into two subgroups: (a) preserving the utility and desirability of the physical property; and (b) servicing tenants.

When the property has been put into proper physical condition to attract tenants, and when the tenants have been

secured, the executive phase of the manager's work is only half done. The income has been developed—and it must now be maintained over as long a period of time as possible. It cannot be maintained if the property loses its utility and desirability. Three major steps must be taken to maintain these assets. The first subgroup may be outlined as follows:

a) Preservation of the physical utility and desirability of the property
  (1) Control of depreciation
    (a) Deterioration
      i) Curable
      ii) Incurable
    (b) Functional obsolescence
      i) Curable
      ii) Incurable
    (c) Economic obsolescence
    (d) Capital additions
  (2) Maintenance
    (a) Grounds
    (b) Building exterior
    (c) Building interior
    (d) Equipment
    (e) Furnishings
  (3) Good will of tenants and the public
    (a) Civic interests
    (b) Deliveries
    (c) Visitor contacts
    (d) Appearance of the building
    (e) Reputation.

Proper handling of the numerous details that constitute the general phase of the management program calls for a broad knowledge of technical matters, infinite patience, and a high degree of skill. If the manager himself does not possess all these qualifications he should employ men who do have them, and then learn how to supervise them. All eight of the primary interests of owner and tenant are menaced if management slips up on a single item in this phase of the program.

The Eleventh Principle

Let us suggest that the Eleventh principle of real estate management is that, consistent with cost, the utility and desirability of the physical property must be maintained in balance with the needs and desires of the tenancy for which the location is best adapted.

The second subgroup of problems involved in the maintenance of income are those that have to do with servicing tenants. They may be outlined as follows:

b) Services to tenants.
  (1) Utilities
    (a) Heat
    (b) Water
    (c) Light and power
    (d) Telephone
    (e) Gas
  (2) Furnishings
    (a) Selection
    (b) Repair
    (c) Replacements
  (3) Extra services.

This phase of the management program is a particularly vital one. It has to be right in order to attract tenants in the first place; and it must continue to be right to hold them. Here is where the manager has his chance to cater to the primary interests of the tenant in reference to security and safety, comfort and conveniences, peace and freedom from annoyances, and maintenance of the tenant's standard of living. He cannot afford to neglect these services. He must offer them to the fullest degree consistent with cost.

The Twelfth Principle

Now let us try to express the Twelfth principle of real estate management. It is that the holding of tenants and maintenance of income depends upon the furnishing of all services necessary, consistent with cost, to enable tenant to attain his four primary housing interests.

Additional Services

In carrying through a program of management that adequately deals with all of the various phases of the administrative problems and executive problems, as we have suggested, the manager is serving the owner as well as the tenant. However, there are *additional services* which are frequently required by the owner. Some of them are:

1. Consultation on real estate problems
2. The handling of tax problems
3. The handling of insurance problems
4. Resales
5. Collections
6. Evictions
7. Record keeping
8. The filing of reports.

We have attempted in this brief article to outline our conception of the basic principles of real estate management. In doing so, we have presented a bird's-eye view of the entire field without taking the time to discuss fully any one of the hundreds of different aspects of the subject. It is our hope that this outline, brief as it is, will help the reader to organize his thinking about the problems of real estate management and enable him to do a better job as a property manager.

The way to understand and make the most of modern rental markets is through analysis as outlined herein.

Neighborhood and Market Analysis

By *J. William Markeim, C.P.M., M.A.I.*

To develop the most income from a property, the manager must understand the neighborhood in which it is located. This is so since the benefits offered by the property must be made to match as nearly as possible the needs of those who are expected to use it. When that "match" is partially or wholly lacking, it is difficult, often impossible, to maintain satisfactory income. This applies to all types of real estate where income is the objective, since it is a law of management that no property can be successfully operated except in relation to its actual or potential customers.

Thus, the running of an income property is something like the use of a section of land in growing grains or vegetables. Before the owner of the land decides what seed to plant, he considers the type of soil, the conditions under which it will be cultivated, and the marketability of various products. The property manager in much the same way considers first the structure of the neighborhood where income seeds are to be planted, the traits of the people who live in that neighborhood, and the social and economic forces which play upon it. Not only must he weigh these factors as they exist at present, but as they *may* exist in the future.

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Definition of Neighborhood

But what *is* a neighborhood? In a broad sense the neighborhood may be called a *homogeneous* unit in the social organism. It is a group of people drawn to the same area by fundamental common interests, such as related vocations, recreational advantages, shopping facilities, cultural activities, racial bonds, religious compatibility, or any combination of these and other factors. This definition is perhaps as good as any, but it must be accepted with certain reservations.

In the first place, a neighborhood seldom exists where the boundaries are sharp or static. Think of your own neighborhood, for example. How far to the north, south, east, west, does it extend? Nor can you say that a neighborhood remains the same from year to year. Just as human desires shift back and forth, so do neighborhoods. They are extremely sensitive to economic conditions, influenced by social trends, responsive to that intangible force called public opinion. One area may be standing still or shrinking while another is expanding. We can never be sure of a neighborhood's boundaries.

Second, the degree of variation between different neighborhoods is never the same in any two cities or in any two periods of time. As a rule, however, neighborhoods are easier to identify in

the larger population centers. This is only because the big city is more likely to attract a great number of individuals in certain groups of mutual interest. Naturally, they get together and form neighborhoods. Thus a metropolis may have a Chinatown, an artists' colony, a Little Italy, a Gold Coast — more or less homogeneous groups no one would expect to find in smaller communities.

Third, we must remember that neighborhoods are often more determined by the economic and social uses to which the properties in them are put—than by their human differences. Aside from the residential sections, there may be areas wholly, or to a large degree, devoted to industrial plants, retail stores, office structures, amusement buildings, financial institutions, wholesale houses, produce markets, educational edifices, or some combination of two or more of these widely different uses. While the boundaries of such neighborhoods are usually fairly well fixed, they can at times change with astonishing rapidity.

Fourth, while we speak of neighborhoods as centers of mutual interest, it must be obvious that these bonds which tend to bring people together cannot by any means be all-inclusive, and that no matter what the class of a particular neighborhood might be, it could not possibly answer all the needs of its residents. Thus, John Doe and his family may live in Glendale but always turn to some other neighborhood to shop, or to see a motion picture. Mrs. Doe may get along nicely with her neighbors, but her intimate friends may live on the South Side several miles from her own home. There may be a good high school in the neighborhood, but Dolly Doe may prefer an academy in Oak Park. Mr. Doe may be content to live in Glendale, but he may always entertain business men from other cities in a downtown hotel. All the Doe family may seek religious inspiration by attending a church in some other neighborhood. In the same way, two wealthy men may buy estates in the same area, although they never speak when they meet at the Stock Exchange. In spite of their mutual dislike, they are brought to the same neighborhood by the prestige of living in it. Thus sometimes the forces which tend to identify a neighborhood are at the same time in competition with weaker forces which tend to destroy it.

In analyzing a neighborhood, a property manager might set up any one of several classifications of factors to be checked. For the property manager, however, whose primary concern is what income, under existing neighborhood conditions, his building may reasonably be expected to produce in competition with other similar buildings, the classification which follows seems the most logical and helpful approach. In this classification, the various factors are divided into four major groups: (1) Geographic; (2) Economic; (3) Social; and (4) Civic. Each of these groups is in turn broken down so that at the end of the analysis the manager has a mental concept of the neighborhood which covers pretty well every aspect that may influence income production.

The Geographic Factors

Geographic factors may have considerable weight in adding to, or subtracting from, the attractiveness of a given neighborhood. While in general there is little that the manager can do to change these physical attributes, since his property "stays put" where it has been erected, he must under-

stand and make allowances for them in planning his income-production program. When a condition exists, favorable, or unfavorable, it is bound to have an influence, positive or negative, on rent schedules and/or tenant turnover. To ignore a geographic factor may mean the loss of income, either from the failure to "charge" for an amenity or from the stubborn adherence to a rent schedule which cannot be successfully maintained.

Boundaries. As has been pointed out, it is not usually possible to chart the neighborhoods of a city on a map with sharply drawn lines of demarcation. Too often these lines exist only in an imaginary state, so that one so-called neighborhood may overlap or blend into another. In such cases, the nearer the supposed border line the property stands, the more its use is likely to be influenced by conditions in the adjacent community. Such marginal locations may, of course, be either beneficial or detrimental to the manager's plan for producing maximum income.

Sometimes, to be sure, we find neighborhoods encircled, or partly encircled, by the firm hand of Nature. These natural boundaries may be established by rivers, lakes, mountains, ravines, or frequently flooded bottom land. The chief tendency of such barriers is to limit the expansion of the neighborhood which they border. When, for example, all the land within the horseshoe bend of a river has been put to good use, the neighborhood within that bend can only creep slowly out the open end or reach upward with taller buildings. By overcongestion of population, this may make the area less desirable and thus tend to retard income production, or, if the district is highly attractive for commercial or residential purposes, it may tend to increase values and thus make income easier to produce. When such neighborhoods are not fully developed it is the obligation of the property manager to look ahead and decide correctly what the ultimate effect will be on income possibilities.

An example of a natural boundary which for years has affected income production in the city of Chicago is Lake Michigan, especially that part of it which borders apartment building neighborhoods. Originally, buildings erected on the shore of this lake exacted a premium in rentals over similar structures not so favorably located. Some of these properties have continued to maintain their income producing advantage. Others, strangely enough, through the work of man, have slipped badly. Because of the reclamation program which has been creating dry land where water stood before, some of these buildings now stand at least half a mile from the water. Between them and the edge of the lake have appeared public parks and beaches, the outer drive, fee golf courses, other buildings, etc. They are no longer "lake shore" properties, and so their ability to earn income has been reduced. In similar fashion, some of the newer apartment structures have been adversely affected by the installation near or adjacent to them of public beaches—a blessing no doubt for the people who flock to them like flies on a summer day, but not to the tenants who must endure the noise and confusion.

In addition to the natural boundaries, there are those artificial ones created by man. Among them are highways, canals, parks, cemetaries, golf courses, forest preserves, or even streets which

may become the dividing lines between neighborhoods of quite different character. A good example of the latter is Canal Street in New Orleans, with the old French Quarter beginning on one side and the modern city beginning on the other. In some cases, these artificial boundaries are beneficial to neighborhoods; in others, they have the opposite effect. Apartment buildings, for example, which stand adjacent to Forest Park in St. Louis tend to maintain income production levels because tenants enjoy the view, the fresh air, the opportunity for their children to play in comparative safety. An exception, however, is the south side of this park where apartment buildings suffer from proximity to an amusement center patronized by the lower classes, a football stadium, and a stock pavilion.

Topography. Of great importance in helping to determine the character of a neighborhood is its topographic structure. Level land, for example, is preferable for business locations but hilly land is often considered fine for residential purposes. In the same way, a dead end street is seldom attractive in a business section but may be held advantageous by tenants in apartment buildings or by home owners, since it promotes privacy and eliminates through traffic.

Among the topographic characteristics affecting the type and use of land improvements are hills, swamps and bogs, ravines, springs, brooks, waterfalls, cliffs, number of feet above sea level, nature of the topsoil, degree of exposure to breezes and sunshine, and other features which are peculiar to certain neighborhoods. The degree of natural drainage and the ease with which artificial drainage may be installed are always pertinent considerations in neighborhood rating. Natural resources also at times produce surprising changes, as when gas or oil is discovered in areas which hitherto have been purely residential.

One of the basic needs of man is water, and certain neighborhoods have been greatly benefitted by the presence of natural springs or just the fact that unusually pure drinking water is easily available. In this connection, of course, you think of such famous spots as Silver Springs, Florida; Hot Springs, Arkansas; and Colorado Springs, Colorado. On the other hand, water in some cases may prove to be a handicap rather than an asset. When the ground is too low so that basements are frequently flooded or the soil is so wet that building construction is difficult, people are likely to shy away from the area rather than to be attracted to it. Sometimes, too, a stagnant pond or a stinking little stream retards neighborhood development until the city fathers do something to correct these deterents.

Certainly, topographic factors must be carefully weighed in the property manager's analysis of any neighborhood—not only as they now exist, but also as they may be exploited or corrected in the future.

Climate. Even though the Weather Man does as he pleases and we must make the best of what he chooses to give us, the property manager must give proper consideration to climatic influences as they may help or hinder the operation of a building in any given neighborhood. Winds, fogs, temperature, humidity, storms, rain, snow, sleet—these elements of nature cannot be changed in substance or degree, but man has made considerable progress in

utilizing their effects when beneficial, or in guarding against those effects when they are not to his liking. Furthermore, all of these factors are relative in the sense that the same element may be a blessing or an evil depending on the degree in which it exists. One community may be favored by too much rain, another may be handicapped by too little. An occasional drop in temperature to zero is stimulating—perpetual zero weather through a long winter is depressing. The area which never sees a snowfall is missing an exhilerating experience; the area which has continuous snow finds it a nuisance.

Even in the same city there may be considerable variations in the climatic conditions prevailing in different neighborhoods. The property manager must know what these variations are, and how they help or hinder the operation of a given building. When a certain condition is an obstacle to income production, he must seek a plan by which it may be overcome; when another condition is an advantage to his building, he must be alert enough to exploit it.

The presence of a large body of water, for example, bordering one neighborhood may result in an average temperature several degrees lower than that in another neighborhood only a mile or two distant. One neighborhood may be in a pocket, surrounded by hills, cut off from breezes. Another, on the crest or the other side of one of the same hills may enjoy gentle winds which are almost continuous. Snow may be more of a handicap to the hillcrest community than to the one located in the valley. Sleet may be a menace in the hilly regions where streets and driveways are steep. Sleet on the flat land may cause little inconvenience.

Certain buildings, of course, are constructed to offset climatic objections. When the manager inherits an air-conditioned property in a neighborhood where humidity is a problem, he has an ace to play in his income production program. Sometimes, an older building which is not paying dividends may be changed into a profitable business enterprise by the installation of air-conditioning, the addition of open-air sleeping porches, a roof garden, a swimming pool, or some other improvement remedy for a climatic hindrance. The smart property manager takes inventory of conditions as they exist, outside and within his building, and then does what he can to nullify handicaps or add inducements to occupancy.

Economic Factors

One fact that the head of any business must always remember is that the disposal of his products or services is influenced by the law of supply and demand. Before a property manager can fill the units in a building at rentals comparable to those being asked in other similar buildings in the same neighborhood there must be people who want that kind of living or working space—*and who have the ability to pay for it.* Going a step further, it is apparent that this condition of an existing market able to absorb the property units is in turn controlled by numerous economic factors which are hardly ever the same in any two periods of time. When times are good, the demand is likely to be active and fluid; when times are bad, the demand lessens, and for certain types of property becomes practically stagnant. Since this is true, it becomes obvious that the property manager's neighborhood analysis must

include a survey of general economic conditions, as they exist at present and as they are likely to be later.

Occupations. Particularly, the property manager is interested in *how* the people in his neighborhood earn their living, whether the status of these occupations is static, declining, or expanding; and whether or not the established income levels are likely to rise or fall. In other words, he investigates occupations, their earning power, and what trends may effect any alterations in present conditions.

Although Simon-pure occupational centers are the exception rather than the rule, the following types quite often dominate various neighborhoods: (1) Industrial; (2) Commercial; (3) Mining; (4) Lumbering; (5) Fishing; (6) Institutional; (7) Political; (8) Health Resorts; (9) Ship Building; (10) Army Posts and Munition Plants; and (11) Recreational.

Obviously not all of these occupations or the others that might have been included involve the same degree of economic stability. A neighborhood where the majority of wage earners are connected with recreational enterprises is likely to be less dependable as a contributing agent to property income than a neighborhood where the majority of workers are employed by one or more basic industries. In other words, occupational trends in a motion picture community may be less predictable than, for example, occupational trends in a community built around a strongly established public utility. The National Defense Program may change the occupational set-up in neighborhoods adjacent to a site where a new munitions plant is established, but the coming of peace can overnight eliminate the hysteria of war preparations. Thus income properties might first benefit and then suffer from proximity to that munitions project.

Furthermore, it must be apparent that even in the same city all neighborhoods do not participate equally in economic trends that influence employment opportunities. The city as a whole may benefit and expand, but certain neighborhoods may keep in stride while others lag behind. The opening of a canning factory on the waterfront may cause occupational shifts in the adjacent area without changing at all the occupations represented in a neighborhood on the other side of the city. All that the property manager can do is analyze the employment conditions and possible trends in the *particular* neighborhood in which his building stands, keeping in mind of course that all units in a social organism have some relation to each other and the fact that sometimes tenants are attracted from one location to another.

Income Levels. From his investigation of occupations in the neighborhood, it is logical that the property manager should next turn to a survey of income levels. He must know how much money various classes of people are making in order to know where to look for those who can afford space in his building. Different types of buildings appeal, of course, to workers on different income levels. The young married couple whose present monthly income is $125 a month might like to live in an $80 apartment but they can't include that much rent in their budget. Even if they were foolish enough to try it, the manager of the building would not be justified in giving them a lease. In other words, in every neigh-

borhood at any one period of time there are only a certain number of qualified prospects for a given building. Not only must the manager know who and where they are, but he must also plan to meet the competition of other similar buildings for the same group of prospects. When the total space offered by all the buildings of a certain type exceeds the amount of space needed by the total number of prospects in the right income brackets, then vacancies must exist and they cannot be filled unless some of the buildings reduce their rents or change the nature of their units.

Complicating the problem of matching supply against demand is the fact that income levels are seldom the same in any city or neighborhood from year to year. In periods of economic stress, salaries and wages are cut, jobs are eliminated, people do not go as often to the doctors and dentists, luxuries are scratched from the housewife's buying list, dividends to stockholders are passed, business firms are operated without profit—and so it comes to pass that people on one income level yesterday find themselves on a lower level today. Conversely, when times are good, incomes are inflated. The property manager must be a student of these trends and fluctuations. He must know the present status of income levels—must anticipate as nearly as possible what they are going to be in the days ahead.

When the income levels in any neighborhood are analyzed, it is usually found that some are static, some are declining, and some expanding. In each case, so that he may plan his income production program properly, the manager wants to know, "How long has this condition persisted, what brought it about, and what is likely to happen as time goes on?" Once these questions are answered with reasonable accuracy, and not until then, it is possible to make plans for the operation of the building—to decide what rentals should be charged, what services should be established, what items of expense can be included in the budget, what net income may be expected.

Naturally, neighborhoods differ widely in the type and persistency of income levels. The workers in one area may be mostly laborers, their income never beyond bare living needs and subject to frequent interruptions. In another part of the city, there may be an area in which the residents are mostly college professors, business department heads, successful professional men, and others whose net earnings are both high and durable. A third neighborhood may be the favorite haunt of artists, musicians, entertainers, etc.—people whose incomes are sometimes high, but usually spasmodic. You can see that property management in these areas would present entirely different problems.

In any event, income levels — now and possible—are the gauge by which the property manager is partly guided in estimating how his building fits the needs of its neighborhood, and what profit in operation good management may reasonably be expected to produce.

Population Factors. Closely allied to the investigation of occupations and income levels is analysis of the people. The manager, surveying his neighborhood wants to know, (1) The number of persons, (2) The number and size of families, and (3) What are the buying habits of all these people. He wants

these facts as they are now, and he wants also to be informed regarding any trends which have been at work in the past, or may continue to be at work in the future.

If the population of the area has not reached a saturation point, if there has been a steady increase in persons and families year by year over a period of time, then there may be reason to believe that a trend exists which will continue to produce increases unless some abnormal and unexpected economic event appears to end the upward flow. If the neighborhood has barely held its own in population figures for the last few years, after a previous period of expansion, there may be reason to believe that a downward turn is impending. In either situation, the manager must form an opinion and be guided by it, since he knows there is usually some correlation between the income he wants to develop and the population from which it must be drawn.

Furthermore, it must be remembered that trends discernable for the entire population of our nation may not be the trends in smaller neighborhood or city units. National figures and trends have some relation to a property manager's problem, and he must be informed about them, but he can't take for granted that what is happening in other places is also going on in the neighborhoods where his own "business enterprises" are operated.

The classification of population by occupations has been mentioned, but only certain occupational groups contain potential "customers" for a given building. Thus it can readily be true that the general population in a city can be advancing or declining in total, whereas the trend in the groups in which the manager is interested may be entirely different. In other words, the population analysis must be broken down in various ways, the aim in each case being to find the correct relationship between needs of the group and benefits of the building.

The status and trend of the population in reference to age groups may be especially important for certain types of property. A family hotel, for example, quite often draws the major part of its income from elderly people. The hotel may have been operated for a number of years with emphasis on those services which most appeal to that age group. It has gained a reputation in the neighborhood as a "nice place" for old people to live. If this were true, then the manager of such a hotel would find real cause for worry if his population analysis revealed over several years a drop in the percentage of people in the aged group. In the same fashion, a building made up of small one, one and a half, and two room "efficiencies" might depend largely on married couples, school teachers, and bachelors, all in the younger age groups. The manager of such a building would have cause for concern if he found that these groups were shrinking in number.

No analysis of neighborhood population would be complete without a tabulation of the various racial groups represented. In some areas, of course, such a count reveals no problems. Practically all of the residents or workers in the area may be of native American stock—there has been no infiltration of outside elements to set up cross-currents of custom and prejudice. But in other places, whole neighborhoods, once first

class, may now be afflicted with some form of racial blight.

Regardless of the situation which exists, when the population in a neighborhood are tabulated by race, the property manager gains considerable light on solving the income production problem. Whatever he finds, he must accept and make the best of. When two or more races seem to dominate, he can either choose the one to which he will cater, setting up restrictions to eliminate the others, or he can at least try to be selective in choosing tenants from all the groups represented.

Another population factor in the production of income from real estate is the number and size of the families in the area. To a relative degree, it is the size of the family which controls the amount of living space considered necessary. Hence, the property manager is interested in finding out how well the accommodations of his building fit the space needs of the typical family groups in the neighborhood. Although we still see wealthy couples with few or no children living in spacious mansions or multi-room apartments, and poor couples with many children crowded into one- or two-room shacks, these cases are exceptions to what John Doe considers desirable. The modern concept of proper living space seems to be living room, dining room, kitchen and bath—with one bedroom for master and lady, another for the children, and sometimes a "spare" for mother-in-law when she makes her annual visitation. In the better class residential neighborhoods, many of the houses have a second bath, and quarters for a servant, but they are luxuries which the average man cannot afford, and often doesn't want if he could. On the contrary, there is a definite trend in our time toward conserving space by the use of wheel-away beds, combination living and dining rooms, and kitchens so small that they must be a shock to great-grandmother's ghost.

Along with this growing tendency to use just as much space as needed and no more is the more serious trend toward smaller families. This trend, of course, is more at work in the middle and upper classes where restriction is needed least. The result of the two tendencies — use of less space and smaller families—has been to create a real problem for the manager of the building where the space units are large. When the structure cannot be revamped to include more and smaller units, the unhappy solution is usually to reduce rentals and thus concede loss of income.

Counting the families in his neighborhood, grouping them according to size, the property manager is able to estimate with reasonable accuracy how many actual prospects there are for the kind of space he has to offer. Always an executive, operating a business enterprise, he sifts the desirable prospects from the undesirable—doing the best he can to emerge with the one combination of tenants which will produce the maximum income, and at the same time preserve the good name of the property.

The percentage of home owners in the neighborhood also has some relation to stability of tenants. Owners usually take pride in appearance—they fight any tendencies toward blight. An area with a high percentage of home ownership has prestige which tends to keep tenants in rented properties from moving. Tenants, however, do move more frequently than owners. Usually,

too, the turnover is less when income levels in a neighborhood are not too far apart—the rich do not relish living near or with the poor, and the poor are of the same opinion. There is a tendency for people living in the better neighborhoods, where rents are higher, to move less frequently. People living in single-family houses tend to remain longer than those living in apartments. The turnover in two-, three-, and four-family buildings is usually less than in larger structures. From these known tendencies, and others of similar significance, the property manager gains help in predicting what the vacancy will be in any given neighborhood or building—in explaining to ownership why certain percentages prevail.

Other Factors. There are, of course, many other real estate trends about which the manager must be informed so that the operation of his income producing enterprise can be adjusted to them. He examines the number of foreclosures in the neighborhood over a period of years, the attitude of lending institutions, how freely they are willing to make loans, what rates of interest they demand. He examines the market in relation to sales and rentals—how they compare in number and prices with those for similar properties in other neighborhoods, and in other years. He examines the numbers of failures in all lines of business, he decides whether or not they indicate the down-turning of real estate values, or represent only what normally would be expected. In other words, it must be plain that the operation of an income property cannot be properly planned and carried out apart from the economic forces which are seething and churning in city and neighborhood. Knowing what these forces are, knowing how to work with them, is definitely the obligation of management.

Social Factors

The demarcation line between economic and social values is often very thin. Perhaps it may be said that economic values are largely *imposed* on the individual from without; but social values usually originate *within his own mind.* Assuming that you accept this distinction, then it follows that the social factors encountered in neighborhood analysis may often be intangible and elusive. Their influence is felt on management, but they are difficult to identify, to interpret, or to predict.

Living Standards. Nevertheless, in spite of individual differences, motives, prejudices, every neighborhood has certain social characteristics to which an income property within its boundaries must to some measure conform. The manager cannot afford to offer expensive services above the social standards of the people to whom he caters, because they will neither be paid for nor appreciated; on the other hand, he cannot let his building fall below those standards without risking loss of tenants and income. Consequently, he should be a close student of human nature — a psychologist who seeks to read the mind of the prospect who comes to look at a vacancy, a sociologist who seeks to understand the standards of living, the cultural levels, and the social habits of his community. He asks himself many questions. Why have these people chosen this neighborhood? What inner yearnings were satisfied when they came? Why have some of them moved into this building in my charge? Why have some moved out?

Did the management fail to supply what they expected to find? What *are* the standards which I must maintain if this business enterprise is to continue operating on a profitable basis?

He realizes that none of these questions can be answered in the same way for any two families. Some people detest the neighborhood in which they reside; they stay only as long as they are forced to stay by economic necessity, and when they move away it is no fault of management. Others are by nature always seeking greener pastures; they move from building to building for no other reason except they are never completely satisfied in any one spot; they invent abuses to explain their restlessness; they, too, are problem children for management. But the great majority of people seek a neighborhood of their liking and stay there as long as possible; they enjoy neighborly contacts; they stay on in the same building as long as they are well treated, or unless they are subjected to petty annoyances.

Cultural Levels. Cultural levels are just as important in the social structure of the neighborhood as living standards. The personnel of the manager's office or of the building should carefully be selected for their ability to meet tenants on their own plane. A gum-chewing switchboard operator, for example, does not belong in a building where the tenants are of good breeding. A clerk who says "dis" and "dat" has no place there either. All people on the manager's staff should be neatly and conservatively groomed. The whole atmosphere of the place should reflect the culture and good manners which the tenants themselves possess. These observations, of course, apply to the higher type neighborhoods, but even though an area may be second-class, there is no good reason why the management of any building catering to the public should not be courteous and friendly.

Social Habits. Neither can the social habits of the neighborhood be disregarded. If the tenants are accustomed to informal living, a manager can quickly incur their displeasure by setting up restrictions which to them have no meaning. Why, for example, should tenants of this type be expected to ride the freight elevator when leaving for a golf game attired in sweaters and slacks? Why should dogs be taboo if the majority of the tenants want them? A little common sense in adjusting the regulations of the building to the social habits of the neighborhood makes easier the problem of producing income. In many places, of course, this is not as easy as it sounds — there are too many groups of people with different social habits. When this is true, the manager must either slant his building at one of the groups, or strike a reasonable compromise. As has been said, the blending of antagonistic racial groups is almost an impossibility. In the same fashion, it is courting trouble to have in a building some families with a lot of children, and other families who have no children but are bothered by the noise children make. The good manager strives for conformity in his tenants; as nearly as possible, he tries to concentrate on getting people with kindred tastes and habits. In that way he promotes long leases, a satisfied clientele, and credit for himself.

Civic Factors

Next in the panorama of factors in-

fluencing income production are those related to civic regulations, their administration, and the general morale of those living in the area. It is only elemental to say that communities vary widely in these respects. Some are burdened with high public debts, excessive taxes, political leadership of the lowest order, and restrictions on real property which are detrimental to owners and tenants. Others are blessed with a minimum of debts and taxes, with unselfish and honest leadership, and with only those regulations which are necessary for the common welfare. In between these two extremes, are many combinations, partly good and partly bad. Hand in hand, of course, with the type of civic conditions goes civic pride or the lack of it.

Obviously, the manager of an income property must do what he can to adjust his program to whatever civic setup may exist, or may develop, during his stewardship. This does not mean, however, that real estate men must assume a passive attitude toward conditions which are detrimental and unnecessary. Quite to the contrary, they should work to bring about civic reforms.

The burdens of taxation include not only those imposed by state and municipality, and shared by all communities within the area, but also those taxes which often differ in various neighborhoods because of variations in the percentages used in the assessment process. Thus, the income properties in one neighborhood may carry a much heavier tax load than that carried by properties in other neighborhoods — a fact which makes necessary an investigation of assessment practices in each area to determine how much difference or uniformity may exist. Neighborhoods handicapped in this respect naturally present special problems to management, because the attitude of the public toward different living places is bound to be influenced by the size of the tax burden, and what benefits it may or may not create for them.

The presence of the utilities at a reasonable cost tends to aid neighborhood stability, but in the larger cities especially it is not uncommon to find wide differences in various areas. This is also true of the cost of such necessary advantages as sewers, paved streets, sidewalks, water mains, and even fire and police protection. While all of these services contribute to the desirability of neighborhoods, a handicap is imposed on management when the cost in one area is out of line with the cost in other areas.

Zoning laws and deed restrictions also have great influence in determining the comparative desirability of different neighborhoods. Another form of control is the neighborhood restrictive agreement, a private contract drawn voluntarily by property owners. Inasmuch as all of these control agents are discussed elsewhere, it is only necessary to remind ourselves that every manager of real estate must be thoroughly informed regarding the restrictions effective in his own city, and the various parts of it. Thus only may proper provision be made for them in the income production program.

Certainly, when a high form of civic pride prevails in a neighborhood it can be taken for granted that this spirit is the outgrowth of favorable civic conditions. Good morale in any associated group of human beings is neither an accident nor an act of Providence. For-

tunate, indeed, is the property manager whose neighborhood analysis reveals a contented population, proud of their community, blessed with public-minded leadership, and working together to keep civic standards on a high level. To such neighborhoods, the better class of tenants flock of their own accord.

Summary

Looking back through the pages which precede, you can see the property manager busy with his analysis of the neighborhood in which he hopes to develop and maintain maximum income. In that analysis, he encountered factors both to help and to hinder the solution of his problem. That there must always be a certain combination of these conditions and trends, neither all good nor all bad, must be taken for granted, since we could hardly ever expect to find the "perfect" neighborhood.

MARKET ANALYSIS

The property manager may conduct his neighborhood analysis with great care as has been outlined in preceding paragraphs. Yet he cannot thoroughly cope with the problems of any neighborhood, nor reap the greatest possible income from it, unless he also analyzes the real estate market in general.

Real Estate Market Defined

It might be well at this point to define a real estate market. A *real estate market* is a combination of factors and trends under which, at any one time, competition exists for the ownership and use of real property. This competition, as you know from the study of land utilization and neighborhood analysis, varies widely under the influence of the Law of Supply and Demand, so that prices and values are seldom the same from one period to the next.

Thus, it may be seen that a "market" in relation to the sale or rental of space has no permanence in time or degree. Yesterday, today, tomorrow, different markets may exist for vacancies in the same building. Furthermore, there may be at the same time as many different markets as there are different types of income properties in different neighborhoods, and in different cities.

In determining what the market is for any particular property, the manager has no clearing house to which he may turn for current quotations or bids. He must THINK the market through, setting down in each instance that combination of factors which exist, and may exist, for that *one* income producing building.

Unique in character. From what has been said, it must be plain that real estate markets are extremely unique in character—so much so, that often they are difficult to interpret or predict. One reason is that unlike many other markets—for clothing, fuel, foodstuffs, etc. —real estate markets have little or no uniformity of product on which prices and values can be based.

A person does not telephone to a property manager, and say, "Reserve for my family one of those Model XYZ apartments advertised in last week's Saturday Evening Post." No, each building placed on the market, for rental or sale, is a "product" sufficient unto itself.

Furthermore, real estate has the marked character of *immobility.* A hotel erected with poor judgment in a district already saturated with that kind of living space, the supply exceed-

ing the demand, cannot be moved to another neighborhood or city. Hence, the erection of real estate structure establishes once and for all time the location of its market. True, the building may attract tenants from outside places, but it still "stays put"—a building cannot be moved at will to places where the market might be more active. Hence, the manager who surveys the income possibilities of a property must think in terms of local market conditions—that is, he cannot afford to be led astray by what is happening in other areas except as they may supply true comparisons in helping to build his own management program. He must locate his own buyers for the units of living space he has for sale, and these buyers can only be found by diligent effort over a period of time in the area where the building stands.

General characteristics. Even though real estate markets are neither standardized nor regulated as are some other markets, they *do* exist. Every day, in thousands of places, properties are sold or rented. In general, too, there is a tendency for properties similar in type and desirability to rent or sell on common levels. There is also a tendency for differences in type and desirability to be reflected with some measure of accuracy by the prices properties command when sold, or the income they may be made to develop. There are, also, certain aspects of real estate markets which seem to be "typical" or usually present. Snyder and Roby mention seven of them in their treatise, "Fundamentals in Real Estate":[1]

1. A real estate market is predominately of local character
2. It is comparatively unorganized
3. It is subject to considerable seasonable activity
4. It does not readily lend itself to short selling
5. It is subject to legal impediments
6. It is relatively uninfluenced by rumor and propaganda
7. It changes its cyclical trend with relative slowness.

Although the above list is by no means all inclusive, the points mentioned are of major importance. Some of them, of course, are of special significance to the property manager since he sells "usage in *time*" rather than permanent possession. The fact, for example, that the demand for different living quarters tends to be seasonal is both a handicap and a benefit in the operation of certain income properties. It forces the manager to concentrate his sales efforts during two short periods of time and prolongs vacancies when those efforts are unsuccessful, but it does give the good manager an edge over his less capable competitor in the sense that the right treatment of tenants throughout the year counteracts the urge to seek other accommodations. Also favorable to real estate markets in comparison with others is the stabilizing influence of the lack of short selling, the comparative immunity to rumor and propaganda, and the relative slowness with which the cyclical trend moves.

No one market. Pausing to consolidate our thinking on the "market" in which the property manager operates, it is plain that the term cannot properly be used except in relation to a *particular property.* When we generalize in speaking of "the income property market" we have set up a mental con-

[1]Blake Snyder and Ralph W. Roby, *Fundamentals in Real Estate* (New York and London: Harper & Brothers Publishers, 1927), p. 127.

cept for which there is no duplicate in reality. The property manager works in many markets — as many as there are buildings in his care.

Real Estate Markets Classified

There are many ways in which real estate markets could be classified, but perhaps the most logical approach to this problem is the *use* to which land and its improvements may be put by man in his pursuit of happiness. The separation which follows is not meant to be final, and some existing markets undoubtedly have been overlooked. But the following does indicate the wide diversification existing in the utilization of income property, and the reader is left to add or substitute as he pleases.

In general, real estate markets seem to fall naturally into one of five major groups, (1) Farm and ranch land; (2) Residential property; (3) Commercial property; (4) Industrial property; and (5) Property involved in the utilization of natural resources. And how may these major groups be subdivided?

(1) Farm and ranch land
  a. For cultivation of various grains
  b. Raising of livestock
  c. Fruit growing
  d. Truck gardening
  e. Cultivation of flowers
  f. Experimental purposes
(2) Residential property
  a. Single-family dwellings
  b. Duplexes
  c. Three-, four-family flats
  d. Multi-family apartment buildings, furnished and unfurnished
  e. Hotels
  f. Resorts, camps
  g. Clubs, dormitories
(3) Commercial property
  a. Office structures
  b. Small stores
  c. Department stores
  d. Wholesale establishments
  e. Marts
  f. Hotels
  g. Theatres
  h. Bowling alleys, billiard halls
  i. Dance halls
  j. Parking lots
  k. Garages
  l. Filling stations
  m. Cafes, night clubs
  n. Fee golf courses
  o. Radio stations
(4) Industrial Property
  a. Heavy manufacturing
  b. Light manufacturing
  c. Warehouses
  d. Assembly plants
  e. Shipyards
  f. Flour mills
  g. Canning factories
  h. Utility plants
  i. Printing plants
(5) Utilization of natural resources
  a. Mining camps
  b. Oil refineries
  c. Lumber mills
  d. Quarries
  e. Caves, canals, toll bridges
  f. Scenic parks.

Surveying the above classification of income properties, incomplete as it is, the multiplicity of "markets" in which the manager may find himself involved becomes both obvious and impressive. Not only are his duties likely to take him over many diverging paths in the social organism, but on every journey he must know *what to look for*, and *how to interpret his findings* in relation to a *particular* building. The real estate manager works in a field where no two combinations of circumstances are ever exactly alike and where each new income producing problem is separate and different from all other problems he may have solved.

Consider, for example, one of the commercial properties listed in the above classification. Have there ever been two office buildings possessing exactly the same market for the rental of space? No, it is highly improbable. Even though they may have been built from the same blueprints, in the same year, and stand no farther apart than across the street from each other, they may differ widely in such respects as types of tenants already present, free-

dom from annoyances in adjacent structures, condition of equipment, exposure to sunshine, and many other factors that enter into that intangible reaction called public acceptance. In similar fashion, two apartment buildings may present entirely different problems to management.

For every item on the classification of real estate markets there are thousands and thousands of definitely different management problems — each brought about by a combination of conditions and circumstances peculiar to the given property.

Real Estate Market Behavior

Considering real estate as a whole, it is generally true that the various markets for sales or rentals follow cycles which tend to recur over and over again during the passage of time. It must be understood, however, that these cycles are subject to frequent interruption and they do not in any sense move with uniform regularity. Furthermore, while there is some correlation between these cycles and general economic cycles and conditions, it is not always present, and may exist in various degrees in different communities. Thus, the market for the rental of small apartments may be extremely active with rates very high in one city but at the same time just the opposite in another. Similarly, in the same area there may be a dull market for one type of residential property, but a live market for a different type. At first glance, such variations in the operation of the cycle might appear inconsistent, but, on the contrary, expert analysis will bring forth invariably a sound and logical explanation.

Nature of real estate cycle. The cycle around which real estate markets seem to revolve is largely controlled by the law of supply and demand. Usually the fluctuations are erratic—swinging back and forth from a "seller's market" when the demand is keen to a "buyer's market" when demand is dull. In both cases, the controlling agent is the supply of certain types of property which are easily available for sale or rental in the open market. Obviously, the seller has the edge when the supply of space is inadequate; the buyer, when that supply is abundant.

The operation of the real estate cycle is easy to understand. In periods of economic depression, nation-wide or local, building construction stands still. At the same time, pressure begins to be exerted by the former high income groups on the groups below. Families that before could afford six-room apartments move into five- or four-room apartments. This tends for a while to hold up the rentals for the smaller units, but it also tends to create a vacuum in the demand for larger units. If the depression continues, and the supply of cheap living space is inadequate, families begin to "double up." To enable themselves to meet the payments on their home, the John Does rent the upper floor.

This does not mean, however, that two families *prefer* to share the same living space, or as a rule that they will continue to do so any longer than necessary. When the economic pendulum starts to swing back toward prosperity, when rent-paying capacity increases as people go back to work and income reductions are restored, the oversupply of vacancies quickly disappears. The pressure is now from the bottom toward the top. People move into better

quarters. With the absorption of vacancies, rentals stiffen. So do prices and values.

At this latter stage in the cycle, the property manager finds it comparatively easy to develop and maintain income. Because operation costs, interest charges, taxes, etc. are more or less fixed, any advance in gross rentals is reflected by even greater proportionate gains in net income.

Little uniformity in operation. So much for the cycle as it affects real estate as a whole. But we know that never at any one time, never in all places is there any *one* market for even similar types of property. Real estate markets do not run together in the same direction, as race-horses run around a track. In spite of the economic plague which began on a Black Friday in 1929 and spread from coast to coast, blighting markets and destroying values, there were some areas in which the people still boast, "It never touched us," — some places where real estate markets held firm throughout the storm.

The market for one kind of space in the commercial group, for example, may be brisk and hot, but at the same time for another kind, it may be flabby and cold. Sometimes, these contrasts are encountered among quite similar types of property, as when retail store space rents easily in one block of Main Street, but not in another; or, when land no more fertile brings a higher price in one county than in the one adjacent.

Another factor tending to draw market behavior away from any semblance of normalcy is the appearance now and then of special emergencies within the social organism. When these events occur, their influence may be rather general, or just touch certain types of property in certain places. In either instance, where the influence is at work, normal trends and cycles are likely to be interrupted. A good illustration is the effect on some real estate markets of the National Defense Program which started to gain impetus in 1940. In many places, this artificial stimulation was a boon to income properties of certain types—particularly, some of the sub-classes in the industrial and residential groups. The benefit came chiefly to steel mills, airplane factories, machine shops, chemical plants, and other units that could help make the weapons or accessories of war. Considerable stimulus, of course, was also given to new construction. The natural result of such activity is that in certain communities payrolls increase, population expands, and shortages are created for some types of residential and commercial property. The danger of such artificial influences on real estate markets is that their beneficial influence is only reflected during the period of the emergency. After the stimulation is removed or retarded, the communities affected are likely to be left with income properties which far exceed the normal demand—thus producing chaos in the same markets which were booming.

Influence of business conditions. In general, the behavior of real estate markets has some correlation with business conditions, but this affinity is neither absolute nor universal.

It is easy to understand why real estate markets should *tend* to react toward general business conditions. During "good times," credit is easier to obtain, wages are higher, foreclosures are rare, the public is in an optimistic frame of mind toward investments.

Furthermore, it is a queer trait of humanity that the average individual—flushed with the fever of prosperity—seldom contemplates the possibility of economic reverses. Because he is earning a good salary, he takes for granted he will never earn less. He doesn't hesitate to assume financial responsibilities, even though they leave little or no surplus for emergencies. If he gets an increase of $25 a month in income, he is quite likely to move his family into a more expensive apartment, or buy a better automobile, or join a golf club — an attitude which makes him quite receptive to real estate investments. This is the *typical* man; of course, there are exceptions.

During "bad times" many factors are pulling in the opposite direction. Credit is tight, wages are lower, jobs are lost, nest eggs are spent, marriages are deferred, foreclosures increase — everything tends to cast a shadow on the average man's thinking. Just as before he overemphasized the possibilities of prosperity, now he exaggerates the possibilities of depression. When the majority of the people in an area, local or national, are "singing the blues" it is logical to expect a negative influence on real estate markets.

The population factor. Inasmuch as all real property exists to meet a need of man—shelter for himself and family, a place to work, a church for worship, a theatre for his amusement, etc.—it must follow as the sun the moon that the behavior of real estate markets is strongly affected by population trends. Here again, however, it is a mistake to think in terms of "all the people" living in the market area of a particular type of property. Only a certain percentage of a neighborhood's population has an interest in the services offered by single-family dwellings, by apartment structures, or by family hotels. Thus, it is possible, and sometimes happens, that the market for a specific type of income property may become more active in spite of a shrinkage in the general population figures.

Nevertheless, we are more concerned with what *usually* happens than with exceptions to the rule. Hence, it may be stated as a fact that in a city or neighborhood where the population is increasing rapidly, real estate markets tend to be active; in a city or neighborhood where the population is decreasing, real estate markets tend to be inactive. Especially is this true when the increase or decrease represents all classes of people, rather than certain special groups.

Types of tenancy. Also affecting the behavior of real estate markets—especially in respect to specific shopping areas, a particular residential property, or a more or less isolated subdivision—is the type and character of the tenants with whom newcomers will have to associate. Remembering that "like seeks like," and that people live and work most happily with others of their own station and culture, it is apparent that there is a tendency toward stabilization of markets when these conditions are homogeneous—toward lack of stabilization when they are not. In other words, the market for living space in an apartment building tends to resist agents which are destructive to income when the manager is able to keep the tenancy on a high level of uniformity and compatibility. On the other hand, when, through necessity or poor judgment, the occupants of a building are a mixture of different racial and cultural

elements, the market for its space is weakened.

The market for office space is just as responsive to tenant characteristics, It isn't always the finest office building in a city that enjoys the highest rent schedule. Sometimes, very old buildings retain top rating because for many years certain important financial institutions, or "big-name" business men, have continued to headquarter there. In the reverse, other office buildings become second-rate when people not held in high esteem are allowed to move in. The presence of a few "quacks" may quickly weaken the market for what has been considered a leading medical center. A bookmaker operating in the back room of a cigar store may drive other tenants from the same building.

Subdivision markets are also sensitive to the factor of tenant selectivity. Many a fine development in our larger cities has started out with a grand flourish, only to fall into a tail spin because some of the first families attracted to the area did not "measure up" to preconceived standards.

Some influences on market behavior are intangible and not always easy to detect. Nevertheless, they are of such great imporance that the property manager simply must take account of them if he expects to develop and maintain maximum income.

Major Objectives

If market analysis is to have any real value in helping the property manager solve his problems or plan his program, it must be based on all the factual information possible to obtain, rather than on such makeshift as personal opinions, recent experiences, or mere hunches. A generality is worthless unless it is formed from the careful accumulation of facts which seem to prove its truth. Too often, real estate men refer to the market as "good" or "bad," "rising" or "falling," "seller's" or "buyer's," simply because of their own success or failure in completing "deals," or because they are influenced by the loose conversation of others. They blame "conditions" for lack of sales or increasing vacancies. But ask them *what* the conditions are, and they are stumped.

The trained real estate analyst approaches the market in a quite different way. For snap judgments, he substitutes straight thinking. He forms no conclusion until as nearly as possible all factors, visible and intangible, have been weighed. Realizing that each market is separate and distinct from all other markets, in respect to time and various types of property, he makes a new analysis for each new management problem — leaning on experience only as it may help him to interpret correctly the new combination of facts, figures, and trends. In doing so, the natural beginning is to determine the nature and scope of the market to be investigated. He wishes to know how large is the area in which forces may be at work that play upon the subject property. For example, the manager of a multi-family apartment building in Chicago is not interested except in a general way in the percentage of vacancies in similar buildings in Newark. If his building stands in Rogers Park, he may be only mildly concerned with vacancies in Flossmoor—the one section far north of the "Loop," and the other far south. On the other hand, if it turns out that families in Rogers Park

are moving to Flossmoor, then he is very much concerned with comparative vacancies.

A survey of causes and results. It is not always easy to differentiate between causes and results. Does low income from a building cause poor management, or does poor management cause low income? Is the market dull because homes are not selling, or are homes not selling because the market is dull? Sometimes, too, a condition or fact can be *both* a cause and a result. The poor physical condition of a building may be the *result* of incapable management—at the same time it may be the *cause* of a dull market for space. Especially is this true in real estate markets with their many conflicting forces, their intangible human relationships, their ever-changing response to social and economic conditions. Consequently, to keep his thinking in straight channels, the real estate manager may properly seek the answers to four questions.

1. What *makes* a market *active* (Causes)
2. What *happens* when a market is active (Results)
3. What *makes* a market *inactive* (Causes)
4. What *happens* when a market is inactive (Results)

Working with that mental pattern, the analyst is equipped to apply causes and results in true perspective to his income property. He knows what has to be done with the building to increase the market for its services.

What makes a market active? In considering this question there is scarcely any limit to how far the manager making the analysis might go, since every major factor may be broken down into smaller factors. Furthermore, for every market, in respect to different periods of time and different properties, there is a different combination of causes. In general, however, certain conditions seem to serve as positive agents in helping to create and maintain active real estate markets. Some of these agents are closely connected with supply and demand, others are matters of relativity and comparison. Among the most important positive agents are:

1. A growing population; particularly when the added families are qualified tenants
2. Increasing employment; more significant when not caused by temporary emergencies
3. Rising wages and salaries; increase in *real* money, more than offsetting higher living costs
4. Profits reported, dividends and extra dividends paid, by other business enterprises
5. Noticeable tendency of families to rent more living space; decrease in "doubling up"
6. Number of marriages in the area increasing
7. Shortage indicated in some or all kinds of property; low percentage of vacancies
8. Adequate supply of skilled labor and of building materials
9. Low construction costs — materials, labor, land, financing
10. Favorable relationship between incomes, rentals, construction costs, etc., so that no one condition is a hindrance to another
11. Real estate investments made easy by attractive terms, low taxes, long-term amortization plans, etc.
12. Favorable relationship between real estate and other forms of competition for John Doe's money.

The property manager is never justified in accepting any signs of an active market as absolute and trustworthy until he has considered their relationships to each other and all other factors which might hinder or help the general trend.

Furthermore, he cannot safely place too much dependence on the result of an analysis made some other time, or for some other property, even though the combination of favorable factors seems

to be identical. If only one thought were to be retained from reading this article, it probably should be that each analysis of market possibilities for an income property is a *new* problem. While the manager may be "seasoned" by past experience, and thus better equipped to form sound judgments, he can never take anything for granted, or be guided by the thought, "this is the way it always has been."

What happens when a market is active? Too much of the one condition tends to create the other. This in the language of the layman is expressed by the familiar saying, "Everything that goes up must eventually come down." A rising market can only carry a certain load—each advance upward adds to the pull of downward forces that finally gain control. For this reason when the property manager examines the market for a particular income-producing building, he is not only concerned with the degree of activity in that market, but also with how far the cycle seems to have progressed up or down. Thus, he takes note of conditions as they are, and then, of how long they are likely to persist. Predicting the turning point within a reasonable degree of accuracy has great weight in helping to plan the income production program—it helps the manager to know whether or not to encourage the signing of long leases, whether or not to remodel his building, etc.

Thinking in general terms of an active market, we have noted the tendency for certain positive forces to be present —"causes" which naturally have their counterparts in "results." Thus, when the population increases, a demand for more living space is created. This at first tends to absorb vacancies until finally a shortage exists. With the supply curtailed, competition appears for desirable locations — finally, as the "squeeze" continues, for *any* locations. This in turn causes rents to go up, creating additional profit for owners of income property. Additional profit attracts those with money to invest. Thus, new construction is stimulated. In the beginning, this building is largely of single-family homes—the answer to demand of people who are making more money and are willing to spend some of it for amenities they lacked when times were "hard." Following the building of homes is the building of apartment and business structures, encouraged by the prospect of large return and the presence of easy credit. Some of these investments are "shoe-string" in nature, but, as long as the "fever" lasts, caution is dimmed.

As the new buildings appear, vacant land is absorbed. Subdivisions are opened, lots are sold in anticipation of profit. Builders "shoot the works" creating whole rows of new houses. Even the city fathers are caught in the trend of optimism. Public improvements are launched—streets are built into the wide open spaces, sewers are placed. The cycle goes up and up. And then . . . .

What makes a market inactive? The question may well be asked: Can the negative agents affecting a market also be listed? No, not completely, because again they never exist in the same combination. But usually they include:

1. Declining population, or one standing so still that there is no impetus to progress
2. Less employment, with its corresponding burden on the social and relief agencies
3. Lower wages and salaries, with no margin left for luxuries and amenities
4. No profits, or smaller profits, reported by industry and business; dividends

reduced, omitted
5. A tendency for families to share living space, or to seek less of it
6. Fewer marriages
7. Percentage of vacancies increasing; particularly in the better-class buildings
8. Inadequate number of skilled workers; flow of building materials retarded by limited production
9. High costs—for construction, for land, for financing
10. Unfavorable relationship between current trends such as lack of correlation between reduction in operation expense and income
11. Real estate investments not attractive; terms difficult, taxes high, money not plentiful
12. Competing investments offering greater return on John Doe's dollar than real estate.

When you compare the factors which tend respectively to make active and inactive markets, you realize that they differ more in degree than substance. In other words, turn an active market "inside out" and you have an inactive market. Each condition—employment, population, marriages, etc. — is something like the keyboard of a piano. On the latter, there are two extremes, the highest and the lowest notes; and, in between, many gradual variations. So it is with these factors which control market trends. At one end of the "keyboard" are many marriages, at the other end are few marriages; in between, there is a sliding scale with a point somewhere near the middle which might be called "average" or "normal." This means that the property manager, making his market analysis, is always striking comparisons — checking facts and figures as he is able to compile them against trends over a period of years. If, for example, he knows that a percentage of five is about "normal" for apartment vacancies he has one indication of a possible inactive market when his analysis reveals a current percentage of eight, nine, or ten.

What happens when a market is inactive? A while ago, we were reviewing the feverish activity that takes place as real estate markets near the top of the cycle. Everything bustle and boom, and then . . . . the sad awakening! Supply has overtaken demand. Things happen fast, disagreeable things. Property becomes hard to rent or sell. The doors of easy credit swing shut. Foreclosures are numerous. Land values topple. Because the operating expense refuses to go down as fast as gross income, net income tends to disappear. Construction stops — there is no profit left for the builders. In the event of general business depression, wages and salaries are cut. Jobs are lost. People go on some form of relief. Unless the government tries to stem the tide by priming the pump artificially, public improvements stand still. Grass grows over the sidewalks in distant subdivisions. Properties tend to run down at the heel, for lack of proper maintenance and repair. Mortgages are hard to renew. Amusement enterprises fold up. Some of the city population goes back to the farm, increasing the number of vacancies. Retail mechants go into bankruptcy leaving empty store sites. Rent levels hit bottom — collection losses increase. Nothing seems to increase but taxes. Property managers get grey hair.

To be sure, this dismal picture is not always as bad as it has been painted. It may exist only for certain types of real estate, may not exist at all in certain communities. Sometimes, too, business trends and property trends may be running in opposite directions. Nevertheless, we know that events in real estate markets tend to follow a definite sequence—that they run in more or less regular cycles recurring throughout the

years. Hence, it is always possible for the property manager to determine in what stage of the cycle he is operating—whether it be for the market in general, or for the particular building from which he is trying to exact maximum income.

Necessary for Management Program

Pegging the property where it seems to belong in the cycle is of great importance to the manager who must consider future possibilities in building his income production program. Expert management involves much more than solving present day problems. A building does not run itself, as a log drifts with the current. A rent schedule must be developed to conform with expected conditions and trends. A budget must be set up to cover maintenance, repairs, replacements, supervision, and all other expense over a period of years. This is the only way that the head of a business enterprise can successfully *manage*. Insofar as is humanly possible, he must *plan* for profit. The word "program" implies *looking ahead*.

Contained in this article are the vital steps necessary in analyzing real property and the owner's position.

Property and Ownership Analysis

By *H. P. Holmes, C.P.M.*

THE satisfactory solution of any problem is dependent upon a correct understanding of the question, or the objective, and of the condition or terms of the problem.

In the field of property management, the common objective in connection with any income piece of property is to—*obtain the greatest possible net return throughout the remaining useful life of the property.* The procedure in the attainment of this objective is called the "management program"—which is an outline of the process from the beginning to the conclusion of the assignment. Theoretically, the answer to the problem is known when the assignment begins. It has just been stated: "Obtain the greatest possible net return throughout the remaining useful life of the property." Practically, in dollars and cents, it is never exactly known until the assignment ends.

Every process must have a beginning —and so it is with a management program. The beginning is established by a careful analysis of all available information. Such information can be classified as belonging, or pertaining, to:

1. The property in question
2. The neighborhood
3. The relationship between the neighborhood and the subject property
4. The general rental market
5. The owner's situation.

A careful analysis of such information enables the property manager intelligently to conclude at what price the product can be sold. The product which an income piece of property has for sale is often considered to be so many square feet of space, plus, in some instances, the furnishing of certain services throughout the period of occupancy.

The Product To Be Sold

The seriousness of the necessity of accurately establishing the proper price can perhaps be pointed out more clearly if it is understood that in reality the product to be sold is *time of occupancy.* Such a product is not like an automobile, a suit of clothes, or a stock of groceries. It is impossible to put on a mill end sale for the purpose of selling past vacancies at a reduced figure. Such vacancies are gone forever and no part of their value can ever be recovered. The success or failure of the property must depend upon establishing the right price at the right time. Past mistakes as to price cannot be partially corrected at a later date.

In order to establish the maximum rental value of an income property, every influencing factor must be considered. Some information is always more important than other information.

To illustrate, careful attention to the foundation of a house is perhaps the most important item to consider in its construction, for, no matter how well it may be put together above ground, ugly defects will appear if it does not rest upon firm footings. In the development of a sound management program, careful attention must be given to a thorough understanding of the property in question and to the owner's situation, before an intelligent start can be made. Before considering the steps necessary in analyzing a piece of property and the owner's position, it might be well to review a few generalities incidental to real estate.

Special Characteristics of Real Estate

Location Always Fixed. Real estate has several special characteristics which distinguish it from other commodities; the most important of which, perhaps, is that its location is never changed. It is what it is where it is, and every conclusion as to its development, use, and value must start with the premise that it cannot be moved. Whatever the development that may be added to the land, it must be made with the full knowledge that it must remain where it is.

The uses to which the development may be put may vary. New uses may be discovered from time to time—but the extent of these new uses must always be determined in relation to present location. A greater price for a parcel of real estate cannot be obtained by removing it to another and better market. Therefore, the price is always *directly influenced* by local demand.

The fact that the location of real estate is fixed is responsible for certain economic distinctions. Every parcel of land differs from every other, even with adjacent properties. In the case of farms, the character and fertility of the soil may vary. Topography of the terrain may be different. Minerals beneath the surface of the earth may be spotted in location; one acre of land may produce an outstanding oil well, while the adjacent acre may be nonproductive.

Real estate improved with buildings is always influenced by transportation facilities: in the case of dwellings, as to how accessible it is to the employment of the occupants; and, in the case of industrial plants, offices, etc., as to how convenient it is to the residential sections; and, in general, how it is related to social centers, civic improvements, and other parts of the city and country.

Legal Distinction. Since the location of real estate is fixed, real estate is always subject to the regulations governing the particular community in which it is located. Such restrictions may be in the form of laws enacted by the government, or by restrictions as to use placed upon the land by an owner or a group of owners.

Nonuniformity of the Commodity. In addition to the variation which exists in the character and quality of land, each building is a product of labor and material; and, in turn, the material is a product of other labor and material, all of which varies in character and quality. Each building differs from the others in design, size, age, quality of construction, light exposure, character of maintenance, etc. Because of these facts, no piece of property can escape from the effects of changes in the neighborhood, the city, and the region in which it is located.

Size, Permanence, and Liquidity of

the Investment. Another characteristic of real estate is that it is usually an investment of considerable size. Typical investments represent thousands of dollars, rather than a few dollars; and, therefore, transfer of ownership from one individual to another is often a slow process.

A part of the investment, or the land, is usually considered to be indestructible, whereas the development of the enterprise or the building may have a useful and valuable life of from one to a hundred or more years. The investor who purchases a piece of real estate hopes and believes that over the period representing the remaining economic life of the property he will receive his original investment back, plus a satisfactory increase, or profit.

Character of Ownership. Ownership of movable or personal property differs from the ownership of land. Land ownership, as it is commonly known today, is always, more or less, subject to limitations. The most complete form of ownership of land is called "the fee simple estate." Estate is the legal term for interests in property, and it represents the total amount of rights that a man may have with respect to a parcel of land.

Blackstone defines property as: "That sole and despotic dominion which one man claims and exercises over the external things of the world in total exclusion of the rights of any other individual in the universe." In the ownership of real estate, this exclusive right does not exist, because of use restrictions placed upon the land and because the state reserves the right to levy and collect taxes, to exercise police protection, and to take over the land for its own use under what is called "the right of eminent domain."

Titles. Ownership of land (real estate) or title thereto may be acquired in a number of ways; the most common of which are:

1. By gift
2. By purchase
3. By adverse possession.

Land may be given away by the government or by private owners. The early pioneers obtained their lands from the government by what is known as "land grants," which, in some cases, cost them nothing and, in other instances, cost them a small fee. Land may be acquired by outright gifts from other individuals, from wills, or from inheritance as established by law. Title by adverse possession is acquired by acts of ownership, although such title may be contrary or hostile to the rights of the legal owner for the required period of time (usually twenty years). This act of ownership must be continuous and as complete as would normally be expected.

Titles are recorded according to registry laws for the purpose of providing evidence of ownership. Recording of title is not compulsory by law, but if the title to a piece of property is not clear and free from defects, the property is not readily saleable. The method of transferring title to real estate depends upon how it was acquired. If obtained by private grant, the title is transferred by a quit claim deed, a warranty deed, or a special warranty deed. In a "quit claim" deed, the former owner simply gives up all of his rights to ownership without any guarantees. In a "warranty" deed, the former owner guarantees the title to be free from defects. A "special warranty" deed guarantees the

title with certain exceptions. Title by public grant is accomplished by the government issuing a patent or grant to a private party.

Title by inheritance may come through a will, which governs the disposition of the property after the death of the owner. If the owner dies without leaving a will, detailed legal rules govern the disposition of the property among the heirs, and title is secured through "descent."

It is possible to acquire title by "adverse claim"; that is, by having undisputed or undisturbed possession over a stipulated period.

It can be seen that, as a result of such special characteristics, real estate cannot escape from the constant changes taking place that affect each property in some way. Some of these changes may be for the good of the property, while others may affect it adversely. It is the duty and responsibility, therefore, of every property manager first to acquaint himself with the problem—and, thereafter, to keep up to date with the changes that are constantly taking place.

The importance and extent of the problems of real estate management can be further seen when we realize that according to the best figures available it is estimated that approximately 55 per cent of this nation's wealth is real estate.

Property Analysis

The study of any parcel of property can be divided into two general classifications. The *first* has to do with the land, and for what purposes it could be used. The *second* is concerned with an inventory of whatever improvements have been made, regardless of how much wisdom was expressed when these improvements were completed.

Land. Real estate, and particularly land, is closely related to the two fundamentals of life—food and shelter. Land, or real estate, in order to have value, must be desirable, useful, and available to others in limited quantities. The value of land, or real estate, depends upon the use to which it may be put; and it follows that the individual who can put land to its highest-best use can afford to pay the highest price for it.

Highest-Best Use Defined. The American Institute of Real Estate Appraisers has defined "highest-best use" as: "That use of, or program of utilization of a site which will produce the maximum net land returns over the total period which comprises the future. The optimum use for a site."

They also point out that sometimes the statement "highest *and* best use" is confusing to the new student, who may believe it refers to the tallest and largest structure that could be erected upon the land in question. This, of course, is not true. For example, it is conceivable that the present highest-best use for a lot in or near the center of a city might be for parking purposes. Such a use would be for only the land.

Determination of Land Use. Competitive forces usually determine the use which will result in the greatest return from land. If a productive farm, for example, will ultimately yield a greater return by being converted into a subdivision, there is a good chance that the idea of farming will be put aside in favor of the subdivision. Or, it might appear that an apartment building should be demolished in favor of an

office building, if it is evident that the new use will yield a greater return from the land.

The determination of the highest-best use, however, is not so simple — for there are often complicating factors which are not easily overcome. The land in question may already be developed by a building which should not be demolished until it arrives at a later period in its useful life. Or funds may not be available with which to convert the land to new uses.

Again, certain new uses, although profitable, may be detrimental to adjacent properties. Such damage to the community might finally result in a reduction in value of all properties in the neighborhood. For example, a factory placed in a residential neighborhood might produce a greater income from the land on which it would be located. It could, however, destroy the desirability of the adjacent land for residential purposes to such an extent that tne final result would be a big reduction in the general value of land in the community. A new use of this kind, therefore, should be prohibited. If, however, there was a sufficient demand for enough factories to use at least a majority of the land in the immediate vicinity for factory purposes, the new use might be justified.

Such situations have been among the causes that have resulted in the placing of use restrictions upon land by the government, or by group owner action, to restrict or direct the operation of competitive forces.

The property manager may often be confronted with a situation, the correction of which may be beyond his control. He may be fully aware that the present development does not represent the highest-best use, but he may be powerless to change that use. If such is the situation, the property manager, in making his analysis, should call all of these facts to the attention of the owner. In addition, he should consider and inform the owner as to the best plan of action under existing conditions, taking into consideration, of course, those changes that are possible of accomplishment.

Before any changes are recommended, it is necessary to be informed as to what restrictions are in force, if any, and for how long they will remain effective. In many instances, use restrictions are put on for a definite number of years. This makes it necessary to consider what may happen to the neighborhood when such restrictions expire. In some instances, it will be found that the existing structure has been developed only as a so-called "taxpayer"—intended to produce enough income during such period until the land can be put to more productive uses than would be justified at the present time.

Inventory of Improvements. After a careful study of the subject land, and lands adjacent, has been made, and the property manager is satisfied with his conclusion as to what the highest-best use of the land is, his next step is to analyze the existing improvements and then to compare his findings with his first conclusion. In making his investigations, he should keep in mind the most important characteristics that may influence future income.

Return of the Building to the Land and Its Environs. In theory, at least, there is an ideal use for every site. The

maximum return from a parcel of land can only be expected when it is developed in such a way as to utilize the site to its fullest extent.

The property manager should, therefore, determine how the existing development compares with the ideal. Is it the right kind or type? Is it an apartment building when it should be a factory, or a store, or an office building? Is it an over-improvement, an under-improvement, a temporary improvement (a taxpayer), or a proper improvement?

Quality of the Improvement. The next step in analyzing the development is to appraise the quality of the labor and materials that were put together to make the structure. This is very important as a preliminary step in preparing a management program. Every structure is subject to depreciation from the moment it is completed. The generally accepted definition of "depreciation" is: "loss in value from any cause." Such loss in value may be due to "deterioration," "functional obsolescence," or "economic obsolescence."

"Deterioration" is the result of use, wear, and tear, and the action of the elements.

"Functional obsolescence" is the decline in the usefulness of the structure due to various causes.

"Economic obsolescence" occurs when new or better uses for the land appear, or when external influences, such as the running out of restrictions, or the enactment of new zoning laws, bring about changes that affect the relationship between the supply and demand for such structures.

While every building is subject to loss from value (other conditions remaining equal), some buildings, because of age, suffer more than others. A poorly constructed building is handicapped at the start, and, with the passage of time, the rate of decline is increasingly accelerated. It follows, therefore, that a program of maintenance to overcome this rapid decline will be more expensive. Some defects of construction can never be satisfactorily corrected. Poor foundations that are affected by the changing seasons, buildings that are improperly braced to withstand windstorms, squeaky floors, undersized heating plants, and faulty plumbing all cause extra trouble and expense as contrasted with a building that was efficiently and honestly constructed in the beginning. The property manager must be able to recognize such conditions and make allowances for them.

Architectural Style. Style influences income and becomes more important as the building increases in age. Some buildings, like some people, grow old gracefully, while others become ugly. What was once a popular fad, may, with time, become an unattractive telltale of age. For example, many New England farm houses are still as attractive and appealing today as when they were constructed, nearly a hundred years ago. Other homes, that may not be more than twenty years old, may be out of date. So, also, with apartments, hotels, and office buildings. Unattractive styles or lack of style are a handicap in producing income.

Design or Layout. The functional plan of a building has much to do with producing income over the span of a building's life. A well-designed building has an advantage over one that is

poorly planned. An awkward or inconvenient layout results in tenant dissatisfaction and vacancies, and, naturally, causes greater losses in income. A flexible layout, or one that lends itself readily to redesigning for new uses, will be more likely to survive with a satisfactory income than one that cannot be easily changed.

Maintenance, Rehabilitation, Modernization. In analyzing a building, it is necessary to study the character and quality of its past maintenance. There may be evidences of neglect or deferred maintenance. In order for the property to produce maximum rentals, a modernization program may be immediately necessary. Confusion and misunderstanding often exist in the meaning of these terms, and, therefore, the following definitions are offered:

"Maintenance," as applied to property management and as conveyed in an operating statement, embraces such expenditures as are required to maintain the property in a condition to perform adequately and efficiently the service for which it is used.

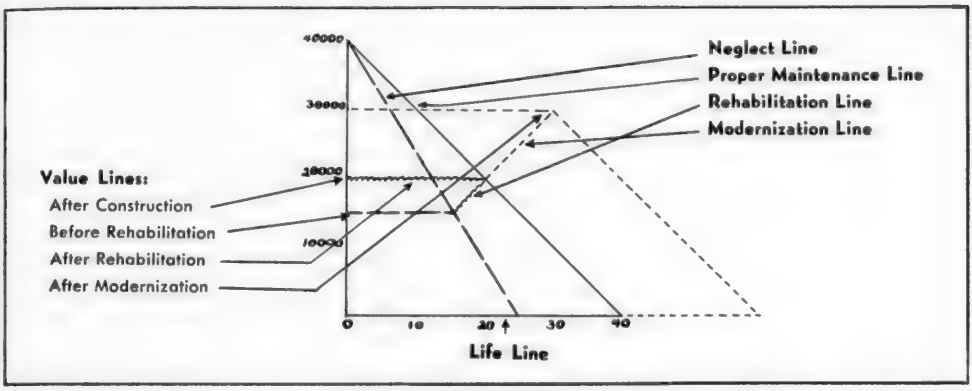
"Rehabilitation" is a term used to indicate the work and expenditures required to raise the physical condition of a property to a level formerly enjoyed. This form of expenditure is necessary only if the property has been neglected in the past and such amounts as are required to maintain the property in proper condition have not been expended. Another term often used to interpret this form of expenditure is "deferred maintenance."

"Modernization," as applied to property management, is intended to represent such expenditures as will lift the physical condition of a property to a higher level, consistent with general progress. This form of expenditure is intended to prolong the useful life of the structure, and, thereby, increase its economic value.

A careful study of a building may show that the future management program will necessarily include expenditures for all three of these items. Or, it may be determined that the building has been properly maintained in the past and that it is modern and up to date. In such a case, only a consistent maintenance program may be necessary.

The distinction between maintenance, rehabilitation, and modernization can be more readily understood by reference to the illustration which appears at the top of page 339. Let us assume that a piece of property has a value of $40,000 when constructed, and that it will have a useful life of forty years. Theoretically, we have a value line and a life line—forming two lines of the triangle. The maintenance line is that line between the highest value and the end of the life.

In the present illustration, the proper maintenance line has not been followed. Instead, the property has been neglected for about fifteen years. The illustration shows the neglect line, and how, if allowed to continue, it would reduce the life of the building. The duty of a property manager is to point out to the owner that this neglect must be made up, or that the property should be rehabilitated to make up for the past neglect. Therefore, the only thing to do



is to complete a rehabilitation program and get back to the maintenance line with the least possible expense and the least possible delay.

At the time the rehabilitation program is in progress, it may be practical to add certain things to the building, which it did not have when it was originally constructed. By so doing, certain telltales of age can be removed and the building can be placed in such a position as to be able to compete with newer and more modern buildings. This is the modernization step, and, naturally, results in extending the useful life of the property.

Examination of Building. So that important items will not be overlooked, a systematic method should be used in examining a structure. The inspection usually begins with the building exterior, and with an examination of the footings, the walls (including openings), the sheet metal, and the roof. The interior is usually divided into private or tenant space and public space such as corridors, stairs, boiler room, laundry, locker space, etc.

Interiors may be divided into walls, ceilings, trim, hardware, electrical wiring, and floors. Careful attention should also be paid to the equipment—such as plumbing (visible and invisible), heating (boiler, radiators, pipes, etc.), elevators, ventilating equipment, refrigeration, stoves, and electrical fixtures. In the case of hotels and furnished apartments, the furnishings must also be considered.

The operating budget of a management program should include a reserve for replacements—so that there will be sufficient funds on hand to replace the roof, the boiler, the stoves, the refrigerators, etc., when necessary.

Ownership Analysis

After the property manager has studied the situation of the land, he is in a position to form conclusions as to what the highest-best use of it would be under ideal conditions. This, added to his knowledge of the building, makes it possible for him to project a plan—which would enable the property as a whole to produce a maximum income. His information, however, is not complete enough to permit him to develop a practical management program—because he does not know that he can

carry out the ideal plan. He has yet to consider the owner's position. His investigation, so far, may disclose that the best plan would include a program of modernization, which would require additional funds to complete. A knowledge of the owner's position is necessary to determine whether or not such funds can be made available.

Owner's Position. An investigation may disclose that the owner must be provided with a certain and constant income from his property. The property in question may be his only means of livelihood. On the other hand, he may have other sources of income and may be willing and able to forego immediate returns, if convinced that by so doing his ultimate situation will be improved.

Owner's Cash Status. The owner's cash status must be known before a final program can be determined. Should additional funds be needed, the owner may be able to furnish such funds from his cash reserve. Another situation might exist where the funds could be obtained by borrowing, or the owner's position might be such that he could do nothing. Under such circumstances, the only program that could be set up would be—*the best program possible, based upon the present income of the property.* A program of this kind might eventually produce satisfactory results, but necessarily, it would take a much longer time.

Owner's Attitude. The owner's attitude, ability, and willingness to understand the situation often influences the management program. After all, the owner's wishes must be followed, and unless the property manager is able to convince the owner that a new policy should be adopted, the old one will have to do. Usually, however, as the result of a careful program of education, the owner can eventually be made to see that his old ideas should be discarded. In any event, the property manager must fully understand the owner's position, attitude, and policy before any plans for the future of the property can be made. There is a great difference in owners. They may be well situated financially; or they may be in distress. They may be fair minded, or they may be unreasonable; and they may be intelligent and well informed, or they may be pitifully ignorant.

In conclusion, it can be said that in the field of real estate, as in every other field, information should be accumulated in a systematic fashion. The omission of certain data may result in the wrong conclusion and produce disaster for all concerned. The routine steps to be taken should never be left to memory alone. After the information has been collected, it must be kept up to date. Conditions are constantly changing, and the successful property manager must at all times keep up with these changes. The right plan, whether it be a continuation of the old plan or a new one, can only be determined by a constant process of understanding, thinking, and acting.

Here's how to prepare a budget that works — and how to set up an equally practical rent schedule.

Budgets and Rent Schedules

By *Sanborn O. Houser, C.P.M.*

A WELL-KNOWN comedian, as most of us recall, several years ago described a new kind of bird called the Mugwump which, he said, flew backwards because it didn't care where it was going, but it wanted to see where it had been. The philosophy of this strange bird seems to be the philosophy of certain managers of income property who in reality don't know where they are going in their management work. They haven't any dependable information as to how the properties under their control will perform during the next twelve months. They know in a general way what has taken place during the past year in the operation of these properties, but in all probability the information which they possess is incomplete, unorganized, and of little practical value. This type of "hit or miss" management is haphazard, uncertain, inefficient, and is the result either of indifference and carelessness, or ignorance and lack of professional knowledge and experience in the science of management.

Essentials of Good Management

The first essential of a business executive is to know what his business enterprise has done in the past. He must have accurate and organized facts which will present a true and readily understandable picture of the operation of the business. The second requirement of a good executive is that he shall have the ability to interpret these facts and project them into the future by means of wise planning ahead. The property manager must measure up to this definition of a business executive, and know what each of the properties for which he is responsible has actually done in the past, not in generalities, but in precise detail — by items — for each month in the year. Possessing this intimate, accurate, complete knowledge of a property a manager will know the weak and strong features in the operation of the property, will know where his mistakes have been made, and where situations may be improved, so that, as plans are developed for the year ahead, the property may be made more nearly to approach a theoretically perfect performance.

All of the skills and techniques of management discussed in this issue of the JOURNAL, together with the vast resources of knowledge and experience accumulated by The Institute of Real Estate Management, are at the disposal of the alert and conscientious manager to help him accomplish this objective.

Importance of the Budget

One of the most important tools which should be included in the work kit of every property manager is the

budget. Its importance cannot be overemphasized. No manager, regardless of his ability in the other phases of his task, can do his best work without it. The budget is a road map, a chart and compass, a timetable, a schedule which guides the manager in his supervision of a building in the course of its operation throughout the year. It is a preconceived plan, a carefully built program, worked out at the beginning of the year for each month of the new year, after careful consideration has been given to past experience and to future probabilities and needs. Each of the months in the budget are stations on the timetable or stops on the road map, where regular check-ups may be made as to the progress of the journey, and where adjustments and changes may be made if the trip is falling behind schedule or proceeding in a wrong direction. The budget is not a magic wand nor an Aladdin's lamp. Yet, when skillfully prepared and conscientiously followed, it does seem to perform miracles and to accomplish the impossible in the operation of income properties.

Preparation of the Budget

The preparation of a budget is not a difficult nor complicated matter, as is often supposed to be the case. Two simple processes are necessary:

(1) First, the operating data for the property in question should be assembled for the preceding twelve months' period and organized by accounts and by months. For budget purposes, a simple chart of accounts may be used which gives the chief items of expense and income. For most apartment properties fifteen to twenty accounts covering the items of expense will be found to be adequate, and, since rent is the only income in most cases, that one item will cover the income account. The names of the expense accounts should be tabulated vertically at the left hand side of the page, to be followed by twelve columns for the months of the year. In the column for each month should be entered the expenses of the month, assembled and grouped according to accounts. The total of each column gives the total expense for that particular month.

At the right side of the page, after the twelfth month, a "total" column should be provided which will give the total expense for the year for each account and the grand total expense of the building for the full year. When this study has been completed and the figures balanced, the property manager will have a most valuable summary of the actual performance of the building for the previous twelve months' period, month by month, and account by account. It will be found that this study will serve many important purposes and will amply repay the manager for the time and effort spent in preparing it.

However, this abbreviated chart of accounts does not in any way replace the need for a complete accounting system as described elsewhere in this issue. In fact, a thorough accounting system will aid much in preparing the abbreviated chart suggested.

(2) Having the figures in this summary now available, the property manager is ready for the second step, which is the actual preparation of the budget for the year ahead. After he has carefully reviewed the results of last year's operation as shown on the study just completed, and after he has thoroughly

inspected the building and premises to determine what repairs and special expenditures are likely to be required for the coming year, the manager is ready to record his best judgment as to what the expense and income for the property will be for each month of the new year, and in so doing he should assemble his figures in the same form which he used for the summary of the previous year. His first attempt should be considered a preliminary one, subject to change, for there will be many adjustments and corrections before the budget reaches its final form.

In compiling these figures, it will be found that certain items such as janitor's wages, ash removal, etc. will not vary from month to month. Many other items, however, will fluctuate widely from one month to the next, because of seasonal conditions or other causes. Here is where the skill of the manager will assert itself in attempting to estimate, for example, how much will be spent for coal in January and how much in July, how much should be allowed for decorating in April and how much in December. At this time the decision must be made as to whether or not the building should be painted on the outside this particular year and, if so, in what month will the expenditure be most suitable. Countless other decisions of this character must be made in building the budget. A careful review of the monthly summary of last year's operation will be of the utmost value in guiding the manager in the matter of these monthly variations and in the matter of determining the frequency with which certain items occur in the course of the year.

When the tentative figures are all compiled, and balanced out, and then compared with past performances, certain changes and modifications will suggest themselves. Other changes will no doubt be required to bring the total figures within certain limits which the manager himself sets up as fair and proper, or which have been so determined by the owner of the property. Accordingly, certain items may have to be omitted, and others reduced, in order to bring about the economies which need to be made. In short, in working out his budget figures, the manager will make full use of the experience of the past, of his knowledge of present conditions, and of the information which he possesses regarding the variations which are likely to occur in the future. And so, finally, after much painstaking effort and earnest study, and after full consultation with the owner of the property, a satisfactory and acceptable budget will emerge in completed form.

Sample Budget

An illustration of a sample monthly budget appears on page 344. It was selected at random from many other budgets prepared the first of this year for specific buildings, and is actually in practical use at the present time. After it was compiled by the manager and approved by the owner, it became a guide for the operation of the particular building for 1941, the manager accepting the responsibility for operating the building according to the standards and limitations set up in the budget, and the owner agreeing to the expenditures proposed by the budget without requiring further consultation or authorization.

It will be noted that the second column from the right gives the budget

SAMPLE MONTHLY BUDGET

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	Budget 1941	Budget 1940	Actual 1940
Janitor	$ 182	$ 182	$ 182	$ 182	$ 182	$ 182	$ 182	$ 272	$ 182	$ 182	$ 182	$ 182	$ 2,274	$ 2,188	$ 2,273
Supplies	30	15	15	15	15	15	15	15	15	15	15	15	195	175	192
Fuel	250	250	250	150	60	60	40	40	50	100	150	200	1,600	1,500	1,312
Ash Removal	16	8	8	8	8	8	8	8	8	8	8	8	104	124	88
Water	54	45	45	54	45	45	54	45	45	54	45	45	576	564	556
Electricity	55	55	45	45	45	40	40	40	40	40	45	45	535	550	466
Decorating (Tenant)	250	150		50	350	350	250	200	350	500	350	150	2,700	2,700	2,718
Painting (Building)				200			80						280	200	
Shades	3	3	4	20	20	20	10	20	15	15	15	15	160	125	177
Exterminating		11			11			11			11		44	50	45
Repairs	100	100	374	50	50	100	250	393	50	100	75	75	1,717	900	692
Equipment				20	20	20			20	20			100	100	75
Advertising			8	8	8	8	8	8	8	8	8	8	80		
Management	100	100	150	150	100	150	150	150	200	150	100	100	1,600	1,500	1,581
Miscellaneous	15	15	15	15	15	15	15	15	15	15	15	15	180	195	208
OPERATING EXPENSE	$1,055	$ 934	$1,096	$ 967	$ 929	$1,013	$1,102	$1,217	$ 998	$1,207	$1,019	$ 858	$12,395	$10,871	$10,384
Insurance	134					840							974		
Taxes	200	201	200	201	201	200	201	201	201	200	201	201	2,408	2,408	2,408
Mortgage	709	709	708	709	709	709	708	709	709	709	708	709	8,505	8,505	8,505
TOTAL EXPENSE	$2,098	$1,844	$2,004	$1,877	$1,839	$2,762	$2,011	$2,127	$1,908	$2,116	$1,928	$1,768	$24,282	$21,784	$21,297
INCOME	$2,085	$2,200	$2,250	$2,250	$2,150	$2,200	$2,200	$2,250	$2,300	$2,250	$2,300	$2,300	$26,735	$25,500	$26,010
NET SURPLUS OR DEFICIT	$ 13*	$ 356	$ 246	$ 373	$ 311	$ 562*	$ 189	$ 123	$ 392	$ 134	$ 372	$ 532	$ 2,453	$ 3,716	$ 4,713

*Indicates Deficit

estimate for the year 1940, under which the building operated for that year. Lack of space does not permit giving the monthly divisions of these figures. The right hand column gives the actual results for 1940 so that comparisons may be made with the forecast of the budget and the actual results. It will be noted that the total operating expense of $21,297 was $487 below the budget estimate and the rental income was $510 above the estimate, resulting in net earnings of $4,713 for the year, or $997 above the goal set by the budget. It will also be noted that the budget for 1941 anticipates a substantially lower net income for reasons which are more or less self-evident and illustrates the changes and variations which are bound to occur from one year to another. For example, coal has been estimated at a higher cost because of increased prices. Certain building repairs and replacements of hall carpets are to be made in 1941 which were not required in 1940. These and other differences explain the reduced earnings of the building in 1941 as compared with 1940.

A further examination of the budget will show the variations which occur from one month to another. The budget actually forecasts a deficit for the month of June of $562 as compared with a surplus of $532 for the month of December. These two months are the extremes during the year. Under this budget plan of operation it is as much an evidence of good management if the actual results for June show a loss of $500 as if the building produces a net profit in December of $500. The budget clearly indicates that the expenses in June will be heavier and that the income will be somewhat less and consequently a deficit will result. On the other hand, expenses are lighter in December and the income more, so naturally the building should produce its best net income in that month. With the aid of the budget all this information is known in advance, and surprises and disappointments are eliminated.

Budget Standards

There are three philosophies which may be followed in setting the objectives and standards in a budget. Certain managers follow the method of making the expense figures higher than they think they will actually be and estimating the income lower than they expect it to be in order that they may appear to have done a conspicuous job by producing results better than called for in the budget. Others have adopted the opposite policy of setting up such rigid standards of low expense figures and high income expectations that it is utterly hopeless to expect that the goal will be achieved. In such event, both owner and manager become disappointed and discouraged by the results. Yet some owners demand impossible budgets thinking that by so doing they will get better results from their managers. The proper basis upon which to build a budget is not represented by either of these approaches. The standards of a budget should not be set so low that no special effort is required to meet them, neither should they be set so high as to be out of reach. A budget should represent a fair and reasonable expectation and should be within the realm of probable attainment under careful, skillful management. It should be such as to make a manager exert himself and put forth his best efforts in order to win out.

Under these conditions a manager will give the best he has with the result that he will have the satisfaction of success and the commendation and good will of the owner. The owner in turn gets his "pay off" in the larger net earnings which the building can be made to produce.

The Monthly Budget

There are those who admit the value of an annual budget, but are unwilling to go beyond that point for they consider that annual figures give them all the information they need. The greatest value of the budget, however, is lost unless the annual budget is divided and distributed on a monthly basis. The annual budget alone gives no guide as to monthly operation and it provides no way to accurately check up on the progress of the building during the course of the year. It would be just as logical to start an auto trip from New York to San Francisco to be completed in ten days' time without first determining how much mileage must be made each day of the trip in order to arrive on schedule. The monthly budget provides a check-up twelve times during the year so that the exact financial progress of the building may be ascertained at the end of every month and comparisons made between actual results and the budget schedule. This offers the manager the opportunity to make changes and adjustments and to apply remedial measures if the variations from the anticipated results should make such steps necessary. Thus throughout the entire year the manager and owner know if the building is on schedule, or if it is running behind or ahead of schedule. Information of this nature is a fundamental necessity to intelligent and successful management.

Enforcement of the Budget

Regardless of the value of the monthly budget, the time and work spent in preparing it is wholly lost unless the budget is actually used and enforced. It is not enough to prepare such a budget and give a copy of it to the owner and then ignore it. It must be made a real, vital instrument, and tool of management, and consulted throughout each month of the year. Its sacred authority must be recognized and honored. Its limitations and restrictions must not be violated except to meet emergency situations and extreme conditions, and then only with the knowledge and approval of the owner.

It has been said by some that a budget is a nuisance and a bother and it cannot be lived up to anyway. A budget, of course, can become a nuisance to an indifferent manager just as cleaning stair halls or shoveling out ashes may be distasteful to a lazy janitor. These are essential tasks of a management program. Experience over many years and with many properties has demonstrated that budgets can be lived up to, that the financial operation of buildings over successive years can be made to conform to predetermined patterns prepared on the basis of intelligent planning, and that the results in actual dollars and cents exceed the results of management without budgets.

Monthly Control Sheet

A simple, yet effective, aid to the enforcement of the budget is the "Monthly Control Sheet," a sample of which appears in the exhibit on page 347. One sheet is prepared for each

SAMPLE MONTHLY CONTROL SHEET

February, 1941

BUDGET	JANITOR	SUPPLIES	FUEL	ASH REMOVAL	WATER	ELECTRICITY	DECORATING (tenant)	PAINTING (building)	SHADES	EXTERMINATING	REPAIRS	EQUIPMENT	ADVERTISING	MANAGEMENT	MISCELLANEOUS	TOTAL
	$182	$15	$250	$3	$45	$55	$150		$3	$11	$100			$100	$15	$934
A. S. McKay	182															182
Water Dept.			177		49											231
Roth-Adam Fuel Co.																408
Austin Carpet Co.											2					410
McCormick Tile Co.											15					425
Regan Electric Co.											17					442
Rollins Supply Co.		15														457
James & Vogel											12					469
Bonded Exterminators										11						480
Scavenger Service																488
Credit Bureau				8												489
R. Cooper, Jr.											6				1	495
Oak Park Hardware											2					497
Regan Electric Co.											25					522
Public Service						51										573
T. E. Edwards							130									703
Utility Sales											3					706
Regan Electric Co.											4					710
Miller Plumbing Co.											4					714
Roth-Adam Fuel Co.			61													775
Management Commission														116		891
TOTAL	$182	$15	$238	$8	$49	$51	$130		$11	$90				$116	$1	$891

month of the year, the accounts and the budget figures for the particular month being entered at the top of the sheet. The manager will consult this sheet as each expenditure is considered to compare the proposed expense with the budget allowance for that expense. If the proposed expenditure is in line with the budget figure the expense will be approved and the item entered at once on the control sheet under the proper account. Additional expenses are handled in the same manner. An accumulative total is carried in the right hand column so that the total amount of the expenditures authorized may be known at any time during the month. When the amount authorized for a particular account has been spent, all further spending stops as far as that account is concerned. When the total budget of expense for all accounts for the month is used up, then all further expenditures for that month are discontinued, except, of course, those required for emergency repairs. In this way the control becomes effective if rigidly applied and the expense is kept within the limits previously established. Repeating this procedure for each month of the year makes possible a financial operation which, at the close of the year, will conform to the objectives set for the full year's program.

It would be foolish, of course, to claim that there will be no differences or variations in actual operation when comparison is made with the budget. These differences, however, will not seriously alter the effectiveness of the budget. It will be found that if the budget has been prepared with thought and intelligence, and if the controls and enforcement program are conscientiously applied, the variations will not be substantial and the actual results will closely correspond with the estimates previously made.

Advantages of the Monthly Budget

It has been the purpose of this discussion to explain the preparation, use, and value of the monthly budget. It may be worthwhile to tabulate and summarize briefly its advantages:

1. It makes possible a greater net return than can be secured without the budget.
2. It gives reasonable assurance that a building will produce net earnings of a specified amount.
3. It removes guesswork, surprises, and disappointments and explains, before they occur, the month-to-month fluctuations in operation.
4. It authorizes a manager to operate the building during the year on the basis of the expenditures included in the budget, and thus eliminates the need for frequent special authorizations.
5. It gives the owner confidence in his manager.
6. It compels a more intelligent and efficient management.

Although this may sound fantastic, a budget once saved a building for an owner and a manager. The financial institution which held the mortgage threatened foreclosure because the building had not earned sufficient income to carry principal payments during the early years of the depression. The situation looked hopeless, and the owner felt helpless. The manager, however, did not give up for he was sure the building could be saved. After

careful study he prepared a monthly budget for the succeeding twelve months' period, limiting the operating expenses to the very lowest point consistent with a proper upkeep of the building and estimating a slightly increased rental income which would result from the higher occupancy which he was determined to bring about. This provided an operating margin sufficient to include in his budget each month a principal payment on the mortgage. The manager caught the first train East, arranged a conference with the officers of the lending institution, and submitted his budget to them. Both the budget and the manager won the confidence and approval of the officers, and they agreed to drop the foreclosure proceedings. The provisions of the budget were faithfully carried out by the manager, the mortgage payments were made regularly and promptly, and both the mortgagee and the owner were satisfied and happy over the outcome.

RENT SCHEDULES

The preceding paragraphs have been devoted to a discussion of the budget. It may be stated without fear of contradiction that the most important single item appearing in the budget is rent income, for without this income there would be no need of a budget. One of the primary tasks and responsibilities of a manager, therefore, is the development and maintenance of income. The rent schedule of a building assumes at once a position of importance and prominence in the accomplishment of this task.

The rent schedule, in its simplest terms, is an itemized list of the income-producing spaces in a building and of the amount of rent which each of these spaces earns. Apart from the use of this schedule in the accounting program and in the monthly financial reports, such a schedule serves an important purpose. In the first place, it guides the manager in the preparation of the budget, and, in the final analysis, is the controlling factor in that budget. The total amount of the rent schedule definitely determines and sets the standard for the current operating program of the building and regulates the expenditures for maintenance and upkeep. Normally, expense bears a definite ratio to income, if the interests of owner and tenant are to be satisfied. If the rent schedule is established on too low a basis, the expense budget suffers, curtailments in operation must be made, and everyone who has a vital relationship to the building loses. If the rent schedule is too high the results are equally disastrous. This then indicates the urgent necessity for an intelligent and scientific approach to the establishment of the rent schedule in order to make certain that the prices set in this schedule are neither too high nor too low, but are at a level which will produce the maximum income.

Market Analysis

This program, of course, suggests that the manager make a "market analysis." Such an analysis is described more in detail in another part of this JOURNAL. For re-emphasis, however, let it be said that an analysis calls for a survey of the neighborhood in order to ascertain vital information affecting the rental prices of the property for which a rent schedule is to be established. For example, detailed information should be assembled regarding: the number of apartment properties in

the district; the desirability of the location; the number of apartments of similar size; a comparison of the arrangement, equipment, decorating, maintenance, and modern upkeep of these apartments; the number of vacant apartments; the general attractiveness and tenant appeal of the apartments; and finally the rental prices. All of these facts must be known and properly weighed before a manager can undertake the preparation of the rent schedule.

This study, however, is not sufficient; an analysis will need to be made of the building itself to determine what adjustments and modifications need to be made in the schedule to allow for the differences in market value of apartments in various locations of the building. Even though apartments may be identical in layout, equipment, and number of rooms, there may be variations of 10 per cent or more in the rental prices obtained for different locations of apartments in the same building. A front apartment is usually priced higher than one in the rear; an apartment on an alley or near the boiler room carries a lower rental because of tenant resistance to these locations. Gradations in rental prices, therefore, must be made in the schedule to allow for handicaps in location and for other conditions which may compel changes in the price list. Kept clearly in mind should be the importance of setting all rental prices in a building on a fair and equitable basis just as far as it is humanly possible to do so. Nothing so quickly stirs up trouble and undermines a tenant's co-operation with, and confidence in, his building manager than to find that Mrs. So-and-So who lives directly under him in an apartment exactly the same as his is paying five dollars or ten dollars a month less than he is paying. Irregularities of this sort should not be permitted. Concessions should be prohibited, and out-of-season leasing at reduced rentals should also be condemned. There should be but one price for identical apartments in equally desirable locations.

Base-Unit Method

A further refinement in this price-fixing program, which carries the science of preparing rental schedules to still greater heights, has been termed the "base-unit method," because, as the name implies, it begins with a particular apartment unit as a base. Under this method the neighborhood survey or market analysis is essential, for the information which such an analysis produces guides the manager in setting up his "base units" at proper rentals. A theoretical apartment with a minimum of equipment and improvements is established at a base-rental price. Apartments having additional equipment or more attractive features carry a higher rental according to a schedule of unit prices for each additional improvement. For example, an apartment with white woodwork might carry a rental $2.50 higher than the typical standard apartment. An apartment with a tabletop stove might rent for $1.00 per month more than the typical standard apartment without such a stove. And so on for a long list of items for which specified additional charges are made to the base rate.

This method of building up a rental price step by step has the disadvantage that if all of the improvements and special features were added to the typical apartment at the price set for each im-

provement the rental price would reach a ridiculously high figure, beyond the willingness or ability of the average tenant to pay. In other words, when a rental price reaches a certain point, tenants will pay no more for the apartment no matter how many additional features or attractions are added. When the rent has reached a maximum for that type of apartment in that particular neighborhood any further investment made for improvements to attempt to secure a still higher rental is money wasted. The base-unit method of adjusting rentals has value, however, in crystallizing in a manager's mind, as well as in a tenant's mind, the expense of changes and improvements that are frequently made without regard to cost or rental price. It has the further value of treating all tenants exactly the same on the basis of standard charges for similar facilities and accommodations. The method cannot be applied too rigidly, however, without considering other factors. It is flexible and adaptable, nevertheless, and may be modified to meet special conditions without destroying its value.

Sheridan-Karkow Rent Formula

It is appropriate at this point to refer briefly to the Sheridan-Karkow formula for establishing the rental schedule of office space. This formula sets as the standard unit a typical office eighteen feet wide and twenty-five feet deep facing on the important street frontage of the building. The rental values of all other spaces are determined in relation to this standard unit. Its purpose is to make possible the appraisal of the relative rental value of all space in all office buildings through an accurate appraisal of the rental value of the par unit in each building. This formula appears to have possibilities of adaptation to use in establishing apartment property rental prices. It is also true that the methods used in the preparation of apartment rent schedules may be applied to office buildings with some merit.

When a rent schedule has been finally prepared and put into effect, the manager will watch the results with special attentiveness for even a theoretically ideal schedule may need to be adjusted and properly fitted to the building. He may find that an excessive vacancy develops, and conclude that the schedule of rents is too high. Or, he may find that the schedule for a certain tier of apartments needs to be slightly modified, but that, in the main, the schedule is substantially correct. It is interesting to note the attitude taken by different owners regarding vacancies. Many of the large financial institutions which have become owners of income property hold rigidly to the opinion that if a building is 100 per cent occupied, the rents are too low and should be raised until one or two vacancies occur. The individual owner, however, is more conservative and prefers to keep his building fully rented, even at lower prices. A successful manager will neither be too conservative and timid nor too venturesome and optimistic, but will attempt to adjust rentals at those levels which will produce a minimum of vacancy and a maximum of gross income.

A Manager's Further Responsibility

A manager has rendered an owner one of the most important services he can perform if he sets up a rent schedule which will produce the maximum

income for a building. But that does not end his responsibility, for conditions are constantly changing and the economic picture never stays the same. This compels the manager to be alert and prepared at all times to meet these changes in whatever way the situation may require. An owner may lose many thousands of dollars because his manager is ignorant of an upward trend in rentals, or because his manager is fearful and lacking in courage to adjust his rentals in line with the rising market. In a falling market, money is often lost by reducing rents too late and trying to maintain a schedule below which the general price level has dropped. A building manager should know when to recommend a downward revision in the rent schedule so that his recommendation will be made before he has lost his tenants. Rent income is the lifeblood of a building, and the manager who keeps this vital stream flowing at the maximum volume, under whatever conditions may exist at any particular time, earns the unbounded gratitude of the owner of that building.

Among the many tasks which a property manager must assume and for which he must be responsible, none perhaps is more important than the administrative responsibility of co-ordinating and harmonizing the interests of both the owner and the tenant. These interests may seem to conflict; yet they may in reality be harmonized and blended in a properly adjusted rent schedule. The rent which a tenant pays must furnish him with security, comfort, freedom from annoyance, and a satisfactory standard of living. This same rent must also be sufficient to protect the owner's investment in the proper maintenance and upkeep of his property and to provide him a reasonable return on his capital. If either the owner or the tenant profits at the sacrifice of the other, both must ultimately lose. The rent schedule therefore must be set at that place which will meet the owner's reasonable needs and requirements, and at the same time make it possible for him to satisfy the basic interests of his tenants. Thus this schedule becomes the meeting place of the primary interests of both owner and tenant.

Any property manager seeking to improve his maintenance and operating departments can profit by reading this article.

Maintenance, Repairs and Decorating

By *Kendall Cady, C.P.M.*

THE fundamental duty of the property manager is to represent the owner and to strive at all times to create the highest net income over the longest period of time.

The creation of the highest net income is a product of two continued lines of endeavor on the part of the manager. The *first* line, which has been discussed in other articles of this series, is the creation of the highest possible income. The *second* line, with which this article is concerned, is the reduction of operating expense. Repairs, maintenance, and decorating account for one-third to one-half of the total expenditures of most properties. They represent the day-to-day drudgery, the everlasting nose-to-the-grindstone following of detail which is so necessary to the successful management of property.

The basis of all knowledge and judgment must be the successful interpretation of the recorded experiences of the past. Thus, the basis of control of maintenance, repairs, and decorating must be the proper analysis of the recorded experience obtained from each building in regard to these items. Each property must have a budget which is a projection into the future of its current operating pattern. This budget should consist primarily of an estimate of income and expense, with, it is hoped, a satisfactory differential which will be remitted to the owner as the return on his investment. Once the owner has approved such a budget, it is the property manager's duty to guide the management of the building along the projected line. It will become necessary for him to record each month's experience, compare it to the budget for that period, and to readjust his management technique, or, if it becomes necessary, to readjust the budget accordingly.

Value of Planning

By a study of the past and present operating patterns of a property and a comparison with similar information on similar properties, the manager may project his program into the future; he may plan for changes which he knows will surely come; he can anticipate trends; and he can maintain, repair, and decorate with an eye to future decreases in operating expenses and to increases in income. Such planned repairs, maintenance, and decorating will return fruits in the shape of lowered operating costs, contented ownership, and the thrill of human achievement.

Space is lacking for a long treatment of the subject of repairs and maintenance. Therefore, the repairs and maintenance portion of this article is broken up into a series of short paragraphs which tend to touch the high spots of this division of our work.

I. REPAIRS AND MAINTENANCE

Modernize as You Maintain

Maintenance is generally interpreted as the process of sustaining the value of an object. However, in our business it has also the connotation of slight repairs. For instance, we speak of the maintenance of plumbing fixtures, and we mean not only the cleaning and replacement of washers, but also the replacement of fixtures from time to time. Now, it would seem self-evident that obsolescence should be combatted by the replacement of a worn-out article with a modern one, yet in our business we find many managers wasting time, energy, and money trying to locate a fixture that will match the balance of the fixtures in the building. The proper technique, however, would be to select a more modern article and to install it in place of the removed one. In the event of one of a pair of faucets wearing out, the thing to do is to replace both with new faucets and to save the good one to be used as the mate of another odd faucet that will eventually be available. Almost every phase of the maintenance and repair technique of modern property management is subject to this "modernize-as-you-maintain" technique. For instance, in many buildings it becomes necessary from time to time to repair base plug receptacles. When this is done, the old single outlet should be replaced with a double outlet. The double outlet is for sale at the same cost and in some cases is easier to obtain than the single receptacle and is almost necessary to the modern lighting technique of light by lamp. This leads us to remark that because in many properties, electricity is furnished by the owner, the manager should eliminate ceiling fixtures and sidewall brackets which tend to be wasteful of electricity. Such elimination is currently in vogue.

Standardize as You Maintain

The modernization-by-maintenance technique which was recommended in the previous paragraph has one rather distressing fault and that is, as times change, a variety of different items may be installed in place of the uniform situation that prevailed previously. In certain items, such as, for instance, kitchen faucets, there would be a distinct disadvantage to the janitor if he had to carry eight or ten different sets of tools and kits of washers, removable seats, etc. to service his building. Obviously, in situations like this there should be standardization. Once you have decided to replace old kitchen faucets with a new and more modern type you should attempt to use the same type, or, at least, a type amenable to the same repair technique, for all replacements. This practice is, of course, a labor-saving device since your maintenance people will become familiar with the new items and with the methods of repairing and maintaining them. It is a wasteful practice to confuse the average workman by assigning him too many burdensome details to look after, because, in the end, he will throw up his hands and lapse into a muddled state of mind which materially cuts his usefulness to you and to the property owner. It also materially raises your operation costs.

Cleanliness — First Step in Maintenance

As a matter of practical analysis the cleaning process is the most important and fundamentally the largest job in the maintenance technique. By far the greatest share of wear is caused by dirt. We know, for instance, that in wool floor

coverings, deterioration is generally caused by the cutting action of small pieces of dirt and grit which are embedded at the base of the carpet rather than by the abrasion on the upper surface of the nap. Or, to take another example, it is the dirt and dust which become lodged in the motor of the electric cleaner which burn it out. Therefore, in maintenance and repair, we must be particularly careful to enforce a state of cleanliness in all parts of our property. In selecting persons for this type of position we must be careful to select those who do not feel that floor scrubbing and similar activities are beneath them. It is, in a way, a sad commentary on American life that a common saying among property managers is "Never hire a janitor who speaks English." It is apparently felt that foreign-born persons are more accustomed to cleaning, and that they are prone to be satisfied with a cleaning job if it offers a good living.

Orderliness – Second Step in Maintenance

It seems trite to say that everything should have a place and be in it. Yet it does not speak well of our business to go from one property to another without finding a really good tool shop and storeroom. The control of tools and equipment and of cleaning supplies is the first essential in proper maintenance. No one can work efficiently under messy conditions and you have every right to condemn as a poor manager the person who manages a property that does not have proper tool and supply storage facilities. The very orderliness of a tool room or tool board tends to inspire in the average employee the desired habit of mind and a better technique of cleaning. It also gives the supervisor an opportunity to check rapidly the presence of essential tools and supplies.

Step-by-Step Maintenance

We have previously mentioned the need for a plan of future operations. If such a plan is present, it is possible to fit each day's maintenance work into the larger long-range scheme. All repairs and maintenance action should be conducted with an eye to the future, so that no work done today will have to be undone tomorrow. Much remodeling and revision work can be done piecemeal so that each step follows in logical order. This same process is usable in the rehabilitation of a run-down property wherever it is financially impossible to do all needed maintenance at once. Each day's work must fit step-by-step into the large-range plan as we march toward completion of the program.

Preventive Maintenance

A good share of the maintenance work which is done on most properties is of a preventive nature. More attention should be paid to this class of work and it is possible that in the future a time will arrive when a good manager will be compensated for his skill in preventive maintenance just as the Chinese doctors are said to be paid only while the patient enjoys good health. For instance, the oiling of motors, their cleaning, the periodic use of chemicals in plumbing lines, and many other types of maintenance come under the head of preventive maintenance. Maintenance contracts, such as those covering the oiling and greasing of elevators, the servicing of refrigerators, and other similar items, are invariably handled on the basis of a preventive maintenance technique. We who are in the management

business could well study these techniques as they apply to other businesses and could take a leaf from their book. It should be emphasized that the primary step in the prevention of future repair costs is proper preventive maintenance.

Waste-Saving Maintenance

As a general rule, waste-saving maintenance is a repair item, but is highly essential. Probably the most common waste-saving situation is the repair of leaking water faucets. Since water is cheap in most cities, people are inclined to feel that it is impossible for the slow drip of a drop of water to create a sizable waste. However, we must not forget that the average building has many faucets and we may remember that most of our city water companies find it necessary to conduct periodical campaigns for the purpose of convincing their customers that waste should be eliminated. This type of waste becomes especially noticeable where very hot water is used, since such temperatures tend to cause leaking valves much more rapidly than does cold water. We have found in many instances that it is necessary to have a small flow of water running continually. For instance, in a dishwashing operation the tendency of the operator is to crack the valve and allow a small flow. However, we find that this is very hard on the valve seats and that after a few days the chances are that this valve cannot be closed. In such circumstances it is well to run a small-sized pipe as a by-pass of the regular valve and to set a valve in the smaller pipe so that when only a small flow of water is desired the small pipe may be opened full.

Similar waste is quite common in automatic valves where water is used for the cooling in refrigeration systems. Wastes of water amounting to several dollars a day are not at all uncommon in this situation. Of course, the same battle against waste must go on in every part of the maintenance technique, whether it be in the proper storage of supplies, or in their proper use, or in the elimination of wasteful purchasing.

Continuous Expense Elimination

Many buildings have situations which require a periodic repair or replacement. Proper maintenance technique would be to eliminate such periodic repair or replacement by installing a device or a method which would accomplish that end. I am thinking, for instance, of a building where it was necessary to pay an extra charge of twenty-five cents per ton for each ton of fuel delivered because the door to the fuel bin had a sill which was more than eighteen inches above ground level and the union regulation covering the delivery of coal provided that the hiker should be paid an extra fee of twenty-five cents per ton in the event it was necessary for him to shovel coal into a doorway or window at a point higher than eighteen inches above grade. The removal of the sill and of a few bricks and the downward shifting of the door frame and door eliminated this twenty-five cents per ton item for all time. The installation of lock-type sockets on electric lamps exposed to stealing is an example. The erection of a proper metal bumper guard at the corner of a building which is otherwise subject to continual damage from trucks might be an example of this technique. Wherever possible, a repair or maintenance operation should include the elimination of future expense, and, if

we capitalize all future expense in one particular instance, we will often discover that it is well worth while to spend sizable sums to eliminate such small dribbles of waste.

Cure It—Don't Treat It

It is not enough to repair a break, or a worn spot, or to clean up an oil spot on the front hall carpet. We must search behind the apparent results for the cause and then, if possible, eliminate it. I am thinking, for instance, of a lobby carpet that I noticed not long ago. I mentioned to the manager of the building that the carpet needed cleaning, but he protested that it had been cleaned only a few weeks before. However, I pointed out a rather large grease spot and reiterated my statement that at least that portion of the carpet would have to be cleaned. He stated that the carpet had been cleaned many times, and that the grease spot always disappeared immediately upon being cleaned, only to return within a few weeks. He also mentioned, almost as though he were divulging the news of a miracle, that the grease spot invariably came back in exactly the same position. Now, it seems to me that anyone in our business should have immediately thought that there was an underlying reason for the return of the oil . . . . in this instance, in the form of the oil-soaked padding below the carpet. The only proper maintenance technique would have been to remove this piece of padding and destroy or clean it. This same type of thing goes on continually in all of our buildings, and we must strive to eliminate it as far as possible. We must strive to make our maintenance employees conscious that there is a cause for every effect and that it is more important to eliminate the cause than it is the effect.

Written Specifications

We hear much talk in our business of specification writing. The good property manager must admit, with proper humility, that he is more likely to *gather* specifications than to *create* them. He learns by the mistakes of others and he uses all knowledge that comes to him. Therefore, if he doesn't know how a certain process should be completed, he should borrow the best specifications available, talk them over with the best source of information in that line, and bend them to his own use. Then, above all things, the property manager should keep a record so that when another such problem arises, he can make use of the spade work done the first time.

Written specifications are necessary for three main reasons:

1. They serve as the basis for competitive bids. No bids are actually competitive unless each bidder has in mind to produce the same job that is considered in the minds of all the other bidders;
2. They serve as a basis for the inspection of the work and the technique required; and
3. They serve as a basis of settlement for any argument that might arise concerning the fulfillment of the work and the intent of the contracting parties.

For all major repair items, therefore, we should have specifications which cover the situation exactly, and no property manager worthy of his profession should operate without their use.

Quality versus Price

It is an ancient axiom that the highest quality is the lowest price in the long run. This undoubtedly is true where the article in question is considered as an individual article and where it will be used up. However, in our business we must temper this maxim

by considerations of obsolescence, style factors, and, most important, the fact that a building may become worn out or, if you will, lose its economic life, although some of the integral parts of the building are still usable. In other words, it would be unsound in our business to install a twenty-five year bonded roof on a building that was likely to collapse or be torn down within the next five years. We must, therefore, consider all repairs, remodeling, etc. in the light of the remaining economic life of the structure, and fit the quality to the situation instead of blindly buying either at the lowest price or of the highest quality.

Let George Do It!

It often seems to the writer that the main difference between brains and brawn is that, if you have brains, you don't need brawn but, if you have brawn, you still need brains to make life worth living. One of the greatest criticisms that could be made of the average maintenance man in the average property managed by the average real estate man is that he apparently never says to himself, "I will think of an easier way to do it." We need therefore to encourage initiative on the part of our maintenance employees. We need to emphasize also that their main thought should always be "Isn't there an easier way to do this task?" The majority of maintenance tasks can be lightened by the proper cleaning technique or by the use of the proper tools or by the use of additional aid. Consider the stick with which a janitor changes overhead light bulbs. These sticks have probably been in existence since Edison made the first lamp with a screw-in socket, but you still see janitors carrying around a heavy stepladder, banging it into the woodwork and damaging plaster, wearing out their strength that could otherwise be used in the beautification of the property, all in order to change a light globe.

We see similar examples as the one mentioned above every day: electric lights that are incorrectly placed in the basement; switches that are not in their proper place; and coal bins so arranged that the janitor has to take an extra step, or has to load the coal from an awkward angle or position, or, in hundreds of instances, has to move the coal an unreasonable distance. I am thinking of one building, for example, which was entirely finished before it was discovered that the coal bin was behind the boiler and the doorway that should have led from the coal bin to the boiler room was blocked by some hot water storage tanks and pipes which had been inadvertently placed across it so that the janitor would have had to get down on his hands and knees and roll the coal under the tanks.

Maintenance for Sales Appeal

One of the chief objectives of maintenance is the sales appeal that clean, well-kept properties are bound to have. Many successful operators achieve this sales appeal, not realizing its importance, by unknowingly setting an example of orderliness and cleanliness for their employees. There is no question but that the buildings of the successful operators are invariably cleaner, and neater, and better kept than those of less successful competitors. I consider it a great compliment whenever anyone says to me that such and such a building managed by us is the neatest building he has ever been in. I hope some day that the buildings under our control

will be universally known as the neatest, cleanest, and best-kept buildings in their respective neighborhoods.

If It's Junk—Junk It

Many old buildings seem to be possessed of janitors who cannot bear to throw things away. You look through a basement and you find stored in one corner thirty-six living room chandeliers which had been installed when the building was erected twenty years ago, but which were later removed at the requests of tenants, never to be used again. Yet they still remain. In a far corner are 362 feet of stovepipe that was used on the old stoves which have since been replaced by the type which apparently does not require a stovepipe. Somewhere between, if you can believe your eyes, are fourteen old iceboxes that were in use previous to the installation of the electric refrigerators. If you scrambled around under all of this junk, you would find some worn-out doormats, fourteen feet of hose with eleven holes in it, seven old brooms, eight halves of brickbats, three pounds of putty, hard as a rock, and a lot of other collected, worthless material impossible to catalog.

The employees of every property should have the authority to decide what is junk and they should have the will to throw it away. The mere presence of such rubbish in a building tends to create a confused state of mind on the part of the maintenance operator, so that he is uncertain where to draw the line. Consequently, he saves all manner of junk to the point that he is never able to find anything, doesn't have adequate storage space, etc. The best technique is to dismantle the discarded objects, save such of the parts as appear to be useful, sell the balance as soon as possible for whatever price it will bring, and then forget the whole matter.

Every Day a Check Day

In the more complicated type of property, especially where there is a fairly large staff moving through the premises each day or each week, different days can be designated when the employees are warned to check up on different objects. For instance, there might be a leaking-water-faucet day, a broken-window day, a loose-molding day, and a carpet day to check up on moths in dark, dirt-collecting closets. The same principle can be applied to seasons of the year. Naturally, at the beginning of the heating season the staff should go through the building checking up on the heating apparatus. Although this process may be continued through the firing months, there should be one general thorough check-up at the end of the heating season so that a record may be made of the repairs, maintenance, etc. required during the summer. Other seasonal check-ups are necessary to assure proper maintenance and to be certain that no parts of the building are being neglected.

Summary

As was stated at the beginning of this section, the main purpose of repairs and maintenance is to prolong the economic life of the property, and the best method of repairs and maintenance will lead to decreased cost in these departments. We will close this part of the discussion by pointing out that to achieve these objectives the good property manager must have a complete knowledge of all of his properties. He must know the

duties of each employee; the objectives behind their duties; the length of time required to perform them; and the cost involved. Knowing all these things, the manager must keep in mind that he is forever looking for a better way to do every maintenance and repair operation. The better way is, of course, to do it *cheaper, easier,* or *to eliminate* it all together.

II. DECORATING

The manager's chief decorating problem is the satisfaction of the tenant or of the prospective tenant. In other words, the chief reason for interior decoration is to create sales appeal in the product offered on the market and to retain the interest of the present tenant to the extent of securing a renewal of the lease or a continued tenancy in apartments renting without a lease. The same type of appeal is present, of course, if we consider office space or any other spaces which are rented and the use of which requires general public contact. If we are to be successful at our job of property management, we must recognize the methods of, and the reasons for, tenant decoration, and we must plan further cost decreases.

All property managers have taken over properties that, from the point of decorative maintenance, have been allowed to run down to a condition where the decoration of the space to be rented will consume three or four months', or even a year's, rental. I have in mind one particular space for which, within a thirty-day period, I O.K.'d bills which were basically of a decorative nature and which amounted to $1,130. This space we intended to, and eventually did, rent for $90 per month. This was, of course, an exaggerated case, but had the proper work been done from time to time this great amount of decorating would not have been necessary. Also, during the long period of time that the apartment was allowed to disintegrate, if it had been properly decorated, it would have netted the owner higher monthly rentals and would not have become unrentable as it was when we secured its management.

Basis of Good Decorating

Fundamental to the economical and proper decorating of all tenant space are adequate records, proper workmanship and application of materials, and good tenant discipline. Your records should show the amount of work, the exact kind of work, and the cost over a period of years of all work done. In ordering any work we should beware of the fallacy of allowing the tenant free choice as to the expenditure of a decorating allowance or as to the choice of wallpaper, paint colors, etc. The tenant's choice should be limited to those products, methods of application, etc. that will not harm the future rentability of the apartment and will not cause excessive future decorating costs. For instance, if the walls in a building are canvased, and it is the management's long-time program to keep them canvased, and, of course, to paint them from time to time, a tenant should not be allowed to have the walls papered unless he is willing to pay the extra cost of removing this paper. He should also be made to pay for repairing any damaged canvas which might result. This same procedure, of course, would apply to any tenant requests which would create a situation that later would have to be rectified.

Surface Protection

Whenever a surface is treated, it should be treated so as to make possible future decorating on that surface at a minimum of expense. In other words, proper preparation work should be done whenever cracks or blemishes are present, and the condition should be rectified and every effort made to eliminate future as well as present expense. If it is necessary to cut corners or to hold down the cost of decorating in a given space, this should be done by methods and in a manner which will not affect future decorating. For instance, it is a foolish economy to allow lapped joints in wallpaper, if it is intended that future wallpapers are to be laid over the present one. In the long run, it is a negative saving to neglect the proper cleaning of a surface previous to resurfacing, because paint or varnish laid over dirt or grease will surely peel and thus cause high and expensive corrective methods. All of us have had experience with buildings where it is necessary to replace trim which has been so abused by successive coats of paint or enamel that such trim is no longer usable.

New Decorating Techniques

In considering a decorating program, the management should be alive to the many new developments in decorating technique. To mention a few, the following are listed:

1. The calcimine scraper is an especially useful instrument where calcimine has been topped (successive coats laid on without washing).
2. The artificial sponge is generally made of a rubber or lastex preparation and is rapidly replacing animal sponges; the cost of natural sponges is too high. Warning should be given that an artificial sponge is not useful for the removing of calcimine. However, this sponge is very often an ideal calcimine cleaner and many of you will find that it is cheaper to clean calcimine by the dry-cleaning method, using either a rubber sponge or wallpaper cleaning dough than it is to remove and replace the calcimine.
3. Casein paints are rapidly becoming more useful to the property management man, who, by experimenting, will discover many uses for them.
4. Mechanical devices such as floor sanders, motor-driven waxers, etc. have been in use for many years. We are now witnessing the greater use of sanding devices which may be employed on plaster walls to eliminate some of the laborious sanding and to remove high spots in stipple work.
5. New paint products are continually being advanced, and, whereas it is not always well to do too much experimentation, a certain amount is necessary if the manager is to keep abreast of the times. We see more and better semi-flat flowing paints which may be laid on over a stipple wall and which retain the appearance of stippling although they actually have not been submitted to the stippling operation.
6. The roller stippler has in many parts of our business replaced the brush stippler.
7. Although at present spray guns are not practical for residential use, they may become so in the near future.
8. Wall-washing machines are receiving favorable comments from persons in our industry and will, undoubtedly, be a future labor-saver for many of us.
9. Simplification of architectural details in the modern apartment tends to eliminate a good deal of labor and expense.

Unfurnished Apartment Decorating

Many property managers feel that it is not wise to decorate an unfurnished apartment because it will rent easier if the prospective tenant is given his choice of color scheme, etc. However, the larger and more progressive real estate companies have found that it is to the advantage of management to decorate space immediately when it becomes vacant. In a large building, of course, it is possible to decorate only model apartments and then to say to a tenant, "If you do not like this wall color, we will give you a similar apartment on the eighth floor and allow you to select your

own wall colors." However, there is no question but what the sales appeal of a decorated apartment is much higher than that of a dirty, undecorated apartment. The average tenant prospect does not possess the imagination which will enable him or her to picture how the space would look in clean, attractive colors.

Also where the manager of a property follows a policy of immediate decorating, he has the chance to save some of his old decorating. For instance, if a room is in fairly good shape, cleaning will be all that is needed. Even though there are a few nail holes to touch up, they may be indiscernible after the room has been put in good shape. The prospective tenant can then be told that he will have to take the apartment as is or pay for any decorating changes. If the apartment is left dirty, instead of washed and touched up, the tenant will undoubtedly demand — and receive — a paint job.

This method also has the advantage of allowing the managing agent to select his own colors. In other words, he can color each wall with a color which he has found to be universally acceptable so that, if his next tenant does not use up the surface, he will be able to pass it on to another prospective tenant because of having selected a popular color. In the selection of these colors care should be exercised. As far as possible use only those colors which may be changed or covered with one coat of the other colors in use, thus eliminating the expense of two-coat work.

Summary

In the average residential building the item of decorating is one of the major expenditures. In the larger cities, at least, it accounts for from 8 to 12 per cent of the gross income of the average flat building. Naturally, the proper control of costs of such a large item is of primary importance to the profitable operation of the building. Tenant acceptance of the decorating program will, of course, tend to govern the gross income of the property.

This article tells how to get the greatest efficiency out of a given heating plant or a given plumbing system.

Heating and Plumbing

By *John McMullen Ducey, C.P.M.*

IN SIMPLE terms, the problem of heating may be described as making indoor spaces comfortably warm when it is uncomfortably cold outdoors. Of course, "comfort" is a subjective condition, and hence rather difficult to treat in terms of definite standards. Thus the problem of satisfying a tenant involves a good many features other than the strictly scientific aspects of heating. In this respect, heating residential buildings can be considered as much an art as a science. The fundamentals of heating science, however, should be familiar to every real estate manager whose operating budgets include any considerable provision for heating expense.

Within the field of real estate management, the end product which we seek to obtain when we design and operate a heating system is, generally speaking, human comfort. There are some exceptions to this generalization: special problems arise in such instances as cold storage plants, manufacturing processes requiring special atmospheric conditions (printing shops, dairies, etc.), and places of public assembly (theaters, auditoriums, etc.). In these exceptional cases, we usually find the problem of heating combined with and even dominated by the problem of ventilating and humidifying, or dehumidifying, the air. The field of air conditioning is a highly specialized one in itself, and can hardly be discussed here. The *majority* of heating problems which confront the manager of real estate have to do with *generation, distribution,* and *consumption* of heat; and under these three headings the following remarks have been arranged.

Heat Consumption

The human body itself is a heat generating plant. The body consumes fuel and generates energy continuously; a certain portion of this generated energy is radiated from the body in the form of heat. The reason we wear heavy clothes in cold weather is not so much to keep the cold out, as it is to prevent too rapid radiation of heat from the body. When this radiation, or loss of heat, occurs at too rapid a rate, we say that we are cold. Since this feeling of discomfort is due to too rapid radiation from the body, such a feeling does not depend solely on the temperature of the surrounding air. It depends considerably upon the *humidity* of that air, and to a certain extent on other factors. We all know that when the air inside an apartment is dry, we must keep it a good deal warmer than when there is adequate humidity in the air. The old fashioned humidifier, which used to be placed on or behind radiators, resulted

not only in a more healthful condition of the air, but actually saved fuel expense by reducing the temperature to which it was necessary to heat living quarters.

In an apartment having ordinary humidity, it is generally necessary to heat to 72 degrees Fahrenheit (dry bulb temperature) in order to satisfy the majority of people. There will be some cold air fiends, however, who enjoy it colder, and some hothouse products, who require it warmer. Getting a building to a temperature of 72 degrees in the winter time, however, does not end the problem; if it is colder outdoors than indoors, there is a continuous heat loss from the building. This loss occurs through the roof, walls, windows, and doors of the building at different rates for each of the materials through which the heat radiates. A very considerable amount of research on heat losses has made possible quite accurate estimates of the heat loss which a building will undergo at the lowest temperature which it is expected to encounter. The heating system of the building may be designed so as to give adequate heat down to an outside temperature of 10 degrees above zero, 10 degrees below zero, 30 degrees below zero, or any other figure. Obviously, a system designed to heat adequately down to 10 degrees above zero will be inadequate when the temperature is 20 degrees below zero. It is equally important to remember that a system designed to heat adequately at 10 degrees above zero will, when the outside temperature is 40 degrees above, far more than supply the heating requirements of the building. A great deal of the waste in any heating system is caused by heating living spaces unnecessarily. When a tenant gets too much heat, he must either shut off the source of heat, or open the windows; and invariably the majority of tenants always think of opening the windows first.

Building managers usually find that the heating systems of buildings under their control are designed so as to give an adequate supply of heat; however, the science of heating system design has not been perfected to the point where it is possible to predetermine the exact amount of heat supply necessary for each room of the building. In fact, most multi-family buildings have some rooms or some apartments which are either too hot or too cold. If a survey of any building indicates that this is true to any considerable degree, it may be possible to obtain a major saving in fuel costs by making some provision for reducing the amount of heat supplied to the overheated rooms. In some systems, utilizing steam or hot water as a heating medium can be accomplished by proper orificing: that is, by distributing the supply of heat in accordance with heat consumption. A thorough job of adjusting the heating supply to the heating needs, based on actual experience, would "balance the system" so that a uniform heat could be obtained throughout the building. In an unbalanced system, rooms and apartments with an oversupply of heating facilities must always be overheated in order to bring the temperature in the undersupplied spaces up to the comfort level. The excess heat sent to the overheated rooms is just so many dollars thrown out the window. If the tenants can be educated to shut off the radiators instead of opening windows, waste of this type can be considerably reduced.

Heat Distribution

In multi-family buildings in America, heat is typically generated at a central source, and is carried throughout the building by some sort of vehicle. The most common vehicles for transporting heat from the point of its origin to its destination are *air, water,* and *steam* (which is water in the gaseous state). When air is used as a heat carrier, it is usually possible, in small buildings, to design a system so that gravity does all the work of moving the air about. This is possible because heated air is so much lighter than cold air. Doubtless you are familiar with the so-called pipeless furnace, which does not even use ducts for directing the flow of the hot and cold air currents. In larger buildings, or in any building where the design prevents heated air from moving with the required rapidity, power-driven fans may be installed to accelerate the movement of air currents.

In many buildings, it has been found more economical to distribute heat by means of hot water or steam. In the past, steam has enjoyed a considerable precedence over hot water because of the great flexibility it possesses as regards generation, distribution, and control. Whatever the medium employed, however, it may be stated that the vehicle itself absorbs heat from some sort of a combustion process which goes on at a central point; the vehicle is then moved to the point at which heat is needed, and there releases the heat which it absorbed at the central point. Of course, it is impossible to design a system where the vehicle does not lose at least a small portion of its heat during its journey from the central point to its destination. Insulated heating pipes will reduce to a great degree the loss of heat from steam or hot water which is simply "on its way somewhere."

Hot water may be distributed by designing a system so that gravity controls the flow of the hot water; or, if economy demands a more rigid control, power-driven pumps can be installed to move the vehicle. The more complicated the heating system becomes, of course, by the introduction into it of pumps or other mechanical equipment, the more necessary does it become to have available mechanics for proper preventive maintenance and for repair of any breakdown which may occur.

When steam is used as a vehicle for the transportation of heat, a number of systems are available for handling its distribution. A general principle underlying all systems is that any gas increases in pressure as the temperature is increased. This is the same principle which is evident in the floating of a balloon by heating the air therein.

We are all familiar with the fact that the boiling point of water at atmospheric pressure is 212 degrees Fahrenheit. The boiling of water simply means the conversion of it from the liquid state to the gaseous state. In other words, steam is water in the form of a gas. Steam at 212 degrees can, by the addition of more heat, be raised to a still higher temperature; and as the temperature increases, the pressure increases as well. The pressure thus generated is used to force steam throughout the pipes and radiators of the heating system. Radiators are so designed that when the steam reaches the point at which heat is to be given off, the heat will be transferred from the steam to the surrounding air. If enough heat is given

off so that the temperature of the steam drops below 212 degrees Fahrenheit (at atmospheric pressure), the steam reverts to the liquid state—in other words it becomes water again. This is known as condensation.

It is possible to design a system so that this condensate is thrown away, emptied down a drain. Generally speaking, however, this is uneconomical, since it is not only a waste of water, but also (since the water is still at a very high temperature) a waste of heat as well. Consequently, most steam heating systems are devised so that the condensate is returned to the boiler to be used again.

There are two general divisions of steam heating systems, and their installations are differentiated by the method they use for returning condensate to the boiler. When we speak of a "one-pipe system," we mean a system in which the steam goes to the radiator, and the condensate returns back from the radiator, through the same pipe. In other words, we have a two-directional flow through a single pipe. In a "two-pipe system," the steam is transmitted to the radiator through one pipe, and the condensate returned to the boiler by means of a different pipe. In other words, the steam and condensate travel through a circuit, rather than back and forth over the same route. Obviously the one-pipe system costs less to install. For larger buildings, however, the economy of operation obtainable through the use of a two-pipe system is generally considered sufficient to recommend its installation.

A later refinement of old-fashioned steam heating systems has been the use of a vacuum within the heating system itself. We know that above 212 degrees Fahrenheit, at atmospheric pressure, we have H_2O in the state of a gas (which we call steam); below 212 degrees (at the same pressure) H_2O is hot water. If we can reduce the pressure below ordinary atmospheric pressure—that is, if we introduce a vacuum—it is possible to have steam at temperatures considerably below 212 degrees. One of the objections to steam heating systems is that the radiators are so hot (meaning at 212 degrees Fahrenheit or higher) that it is uncomfortable to sit in proximity to them; that they dry out furniture; and that on spring and fall days, when only a small amount of heat is necessary, steam heated rooms are universally overheated. However, when we introduce a vacuum into the system, the steam is distributed at temperatures comparable to the temperatures of the water in a hot water system; in addition, if the vacuum is carried by artificial means (in other words by a vacuum pump) the vacuum can be increased or decreased in accordance with the heating load, thus varying the temperatures of the steam in the system.

The above remarks cannot be regarded in any sense even as an introduction to the design and operation of heat distribution systems, nor can they be regarded as a criterion of how much a good building manager should know about heat. They are made here rather as a theoretical framework upon which a good property manager can build his practical knowledge of heating problems.

Heat Generation

The generation of heat really involves two problems: the problem of *combustion;* and the problem of *absorption.*

There are, of course, many ways of generating heat other than combustion; for instance, friction, electrical resistance, and others. However, in relation to the heating problems most property managers face, combustion is the normal method of obtaining heat. Combustion is generically defined as a chemical process accompanied by the evolution of light and heat. More specifically, the combustion which occurs in heating plants is typically the uniting of oxygen with carbon and carbonaceous compounds. A furnace is a piece of equipment designed with two prime objectives: (1) the generation of as much heat as possible from the combustion of a given fuel; and (2) getting as much of this generated heat as possible into the vehicle which is to be distributed throughout the heating system.

Heat Absorption

Let us consider first the second of these objectives. The transferring of the heat from the combustion process to the vehicle is generally designated by the term absorption. A system which will make it possible to absorb 100 per cent of the heat generated in a furnace is impossible to design. We all know that a certain amount of the heat, in the form of hot air, passes out through the chimney; we also know that a certain amount of it will be absorbed by the furnace walls and radiated throughout the space in which the furnace is located. One of the most important economies which should be insisted upon by the property manager is that of keeping the heat-absorbing surfaces clear from soot. For instance, in a steam boiler, the heat generated in the furnace must pass through the heating surfaces of the boiler in order to reach the water which is to be transformed into steam.

If the heating surfaces of the boiler are coated with soot, this soot acts as an effective insulator diminishing the rate of heat transfer. The heat thus choked off simply passes up the chimney, and is wasted. In fact, a layer of soot one-sixteenth inch thick will require in a given heating plant approximately 25 per cent excess fuel consumption; a layer of soot one-eighth inch thick will increase the normal fuel consumption approximately 60 per cent. Every good property manager should include in his system of heating plant supervision a periodic inspection of heat-absorbing surfaces, to see they are kept free of this costly insulation.

Another form of insulation against heat absorption by the boiler occurs in the form of scale inside the boiler. Practically all water used in this country has a certain amount of impurities in it, although the amount and kind of these impurities varies from city to city. The normal process of boiling water causes certain of these impurities to precipitate on the boiler heating surfaces, and, on such surfaces, to build up a gradually accumulated coating. Some engineers consider a thin coating of this kind a good thing—it prevents to some extent pitting and corrosion of the boiler metal; however, any considerable accumulation in this respect will result in heat losses, in very much the same way as will the accumulation of soot on the other side of the boiler heating surfaces.

Combustion

As was previously stated, combustion involves the union of oxygen with car-

bon and certain organic materials. The oxygen used in heat generation is usually that contained in ordinary atmospheric air, which is roughly one-fifth oxygen and four-fifths nitrogen.

The number of types of fuel available for combustion processes is almost innumerable. However, those most commonly used for space heating are wood, coal, oil, and gas. Their value as fuel lies primarily in the fact that they contain a relatively high amount of combustible carbon or organic compounds containing carbon and hydrogen.

As a result of the gradual depletion of the lumber resources of our country, wood, as a fuel, has passed more and more in disuse, particularly in our urban sections; it is, as a matter of fact, a luxury fuel in our larger cities. It is seldom used to heat buildings of any size.

Coal is the standard fuel in most of our larger cities; standard in that it is used more generally for heat generation than are oil or gas, and in that the cost of heating by coal is generally the criterion against which oil and gas installations are compared. From the standpoint of heating fundamentals, however, these fuels are all the same; we are only interested in what heat value they have, and how much of that heat value we can derive from them.

British Thermal Unit

In order to speak quantitatively about heat values, scientists have agreed on a conventional unit of measurement. The formal name of this standard quantity is a "British Thermal Unit," which is defined in the dictionary as "the quantity of heat required to raise the temperature of one pound of water 1 degree Fahrenheit at or near its point of maximum density." This quantity of heat, more familiarly referred to as a "B.T.U." is a rather small quantity. For example, a pound of good grade Illinois coal contains about 12,000 of such units. An insulated three-bedroom home, when the outside temperature is zero and the inside temperature desired is 72 degrees, might need heat equivalent to approximately 50,000 B.T.U.'s per hour.

Since any given fuel contains a limited number of heating units, the property manager interested in economy is faced with two problems: (1) choosing a fuel adapted to the fuel-burning equipment so that the B.T.U. in the fuel can be efficiently utilized; (2) the operation of the heating plant so that the heat value in the fuel can be realized to as large an extent as is possible.

To state this in another way, the objective of economical heat generation is to transmit to the heating vehicle the required number of B.T.U.'s involving the lowest possible fuel consumption.

The "Heat Balance"

When the combustion engineer desires to analyze the efficiency of a heat-generating plant, he customarily makes use of a technique known by the name of "Heat Balance." The heat balance is merely an accounting form, indicating the heat income and outgo, expressed in terms of B.T.U.'s instead of dollars and cents. It is predicated on the assumption that the fuel burned in a given heating plant has a known definite heating value, and that all of the B.T.U.'s in the fuel must be accounted for in one way or another.

The heat value of any fuel can be determined within a small percentage of

error by a competent laboratory analysis (provided, of course, that the sample which the laboratory analyzes is truly representative of the fuel burned in the heating plant). The more difficult problem facing the combustion engineer is that of determining where the B.T.U.'s in each pound of coal went after they entered the furnace. Consider a specific example of heat balance in an actual installation, in which the fuel burned was a fair grade of Middle Western coal:

HEAT BALANCE

	B.T.U.'s per lb. As Fired	Per cent
Heating Value of Fuel	12,017.00	100.00
Heat absorbed by water and steam in boiler	8,848.86	73.57
Heat loss caused by moisture in coal	144.77	1.20
Heat loss caused by water resulting from combustion of hydrogen in coal	525.57	4.37
Heat loss caused by moisture in air	40.28	0.33
Heat loss caused by dry chimney gases	1,713.05	14.24
Heat loss caused by unconsumed combustible in ashes	183.37	1.52
Heat loss caused by unconsumed hydro-carbons, radiations, and unaccounted for	561.10	4.77
Total	12,017.00	100.00

Analyzing the Heat Balance

The first thing that will be observed in the above table is that the greatest cause of lost heat in this particular case was that of "dry chimney gases." For fuel to burn efficiently, it is necessary to have a more or less rapid flow of air through the combustion chamber. This flow is ordinarily referred to as draft. The draft is usually obtained by erecting a chimney or a stack, and, in some cases, by installing fans to increase the flow of air through the fuel bed. It is impossible to design a heating plant so that the heated air has all of the heat removed from it before it passes out the chimney; as a matter of fact, if the temperature of chimney gases can be reduced even as low as 500 degrees at the point at which they enter the chimney, the efficiency of the heating unit would be comparatively high. Since these chimney gases are supposed to have the heat extracted from them by contact with the boiler heating surfaces, the degree of temperature of the chimney gases will be in direct proportion to the difficulty of transferring the heat to the heating vehicle. In other words, if the outside of the boiler heating surfaces is covered with a thick coating of soot, or if the inside is covered with a thick coating of scale, the heat absorption by the boiler will be low, the temperature of the chimney gases high, and the loss of heat to outside atmosphere considerable.

This heat passing out the stack is carried partly by the so-called "dry" chimney gases, and also by *moisture* mixed in with these gases. As was seen in the heat balance example, this moisture came partly from the moisture naturally present in coal, partly from moisture formed by the combustion of hydrogen and hydrogen compounds in the coal, and, to a smaller extent, partly from moisture or humidity present in the air used in combustion. These three classes of heat loss may be grouped together with the heat loss caused by dry chimney gases, and simply called "Heat loss up the chimney"; they are separated in the heat balance for certain technical reasons.

As for the category of loss "caused by unconsumed combustible in ash," this simply means that when the heating plant operator takes out his ashes,

there is always some proportion of combustible matter in that ash. This proportion may be great or small. When coal is burned, it is practically impossible to eliminate all the combustible matter (except in very large plants burning pulverized fuel). When oil or gas is burned, of course, this item is not a major consideration.

In the heat balance illustration, the second most important category of heat loss was that assigned to "unconsumed hydro-carbons, radiation, and unaccounted for." When carbon unites with oxygen in the combustion process, it may form either carbon monoxide or carbon dioxide (CO or CO_2). The carbon monoxide is a poisonous gas with a relatively unstable nature. If any carbon monoxide is going out the stack of a given heating plant, it simply means that the combustion process has not been complete, and that there is some fuel (in the form of carbon monoxide) being thrown away. This is not a major source of waste in most heating plants, since such waste is ordinarily associated with an insufficient supply of air for combustion, whereas the more common fault is an oversupply of air.

It is possible to compute the minimum amount of air theoretically required for the complete combustion of any given fuel. In actual practice, the computed theoretical amount is always exceeded, and the amount of air supplied over and above the theoretical minimum is called "excess air." Excess air of 40 or 50 per cent is normally considered efficient practice, whereas 100 per cent excess air would indicate waste in the heating process. Since all air going through the combustion chamber enters it at about 70 degrees Fahrenheit, and goes to the chimney at perhaps 500 degrees or higher, the B.T.U.'s required to raise the air through that temperature range are simply wasted.

On the basis of extensive experimenting, a definite relationship has been established between the amount of excess air and the percentage of carbon dioxide in the chimney gases. Charts showing this relationship are available in standard reference books on heating. Generally speaking, the more excess air there is, the lower will be the percentage of carbon dioxide. For instance, 100 per cent excess air would be associated with 10 per cent carbon dioxide; 15 per cent carbon dioxide would indicate about 30 per cent excess air.

It is possible to measure the percentage of carbon dioxide at any given time by the use of an instrument called an "orsat" (a gas analyzer of this type retails at $35). It is good practice on boiler installations of any considerable size to have installed an instrument which will record the percentages of carbon dioxide in the flue gases continuously. Such a recording meter is one of the best checks on boiler room efficiency.

There are always some losses which result because heat is radiated to the boiler room from the heat-generating equipment itself. Other types of heat loss also occur which are impossible to ascertain scientifically in most boiler plants. Heat losses caused by radiation can be reduced to some extent by covering small boilers with insulating material; in larger installations, this source of loss is utilized to some extent by constructing the boiler walls so that the air used in the combustion process passes through the boiler setting before being introduced to the combustion chamber,

and thus pre-heats the air used for burning fuel.

Modernization of Heating Plants

One of the modern problems faced by the property manager in connection with heat is the installation of modern fuel burning equipment in older properties. In many large cities, hand fired coal is the typical fuel, particularly in buildings constructed prior to 1929. Many property managers have found that considerable fuel savings are possible by converting such plants to some type of automatic firing. The primary reason why this saving is obtainable lies in the fact that automatic fuel burning equipment can be designed and controlled so as to get much greater efficiency out of a given heating plant; in other words, it transfers to the heating vehicle a much larger percentage of the heat value of the fuel which is burned. A second source of saving, at least in the case of coal stokers, lies in the possibility that a cheaper grade of fuel may be burned in a given heating plant, if automatically fired. While such a saving is dependent to some extent on the local coal market, it has been the basis for numerous cases of stoker installation.

Another aspect which makes the installation of a stoker desirable is that labor saving is possible. Since the stoker requires much less frequent attention than manually fired furnaces, the time saved may be utilized for other work. In addition to the advantages just mentioned, the regulation of the speed of fuel consumption in accordance with the need for heat is more efficient with automatic fuel-burning devices than with hand firing.

Summary for Heating

To sum up, we may say that the heating plant exists in order to carry on efficiently a combustion process, which combustion process generates heat. This heat must be transferred to a vehicle (air, water, or steam) and the vehicle transported to the points where the heat is needed to make human beings comfortable. At every stage of the process, from the original combustion to the regulation of heat consumption at the other end of the heating system, waste and inefficiency are possible. It is the job of the property manager to know where the major sources of waste can occur; to watch his heating costs so that he knows when it is necessary to investigate waste; to know where an investigation is required; and to know how to conduct it and how to correct any inefficiency disclosed by his search.

Numerous criteria have been developed to indicate the overall efficiency of heating systems. Perhaps the soundest of these criteria is the yardstick known as "B.T.U. per degree day, per square foot of radiation." B.T.U. in this formula refers, of course, to the heat value inherent in the fuel which is introduced into the furnace. "Degree day" is a standard term used to indicate severity of outside temperatures. A degree day may be defined as a unit representing a difference of one degree Fahrenheit existing for one twenty-four hour day between 65 degrees and the average outdoor temperature. To find the degree days for a day, you simply subtract from 65 degrees the average outside temperature for the day in question. For instance, if the outside temperature averaged 35 degrees on a given date, the "degree days" for that date would

be 30. Degree days for a month, of course, would be the total of the degree days for each day of that month. The "square feet of radiation" installed in a building heated by steam or hot water, as part of a properly designed system, will be proportioned to the probable heat loss from the building. For making comparisons between a larger number of buildings, it is preferable to use radiation as a basis rather than cubic feet or square feet, since the heat losses of various types of buildings are not as closely related to their area or cubic content as they are to the radiation installed.

In this criterion, therefore, we have a comparison of two elements to indicate the demand for heat *(degree days*, to indicate the severity of the weather, and *radiation*, as a measure of the space to be heated) ; and we have, at the other end of the scale, the number of heat units used to accomplish a given heating job. The ratio between the heat units supplied and the heat needed is our yardstick for comparison of heat efficiencies between buildings. (This yardstick does not include any consideration of whether or not the heating units are being purchased on the most economical basis possible. If this factor needs to be introduced, the criterion would be "fuel cost per degree day per square foot of radiation.)

PLUMBING

The numerous items included under the term "plumbing system" present two major considerations to the property manager. In the first place, in modern America, the kitchen and the bathroom have become major features of the up-to-date house or apartment, and must present a very definite degree of eye appeal to the consumer of housing. The other aspect of the plumbing system is the more traditional one of function. On the subject of eye appeal, it is unnecessary to remind experienced property managers of the addition to the salability or rentability of any dwelling which arises from the fact that the bathroom is attractive and the kitchen cheerful and efficiently planned. Many progressive property managers always make it a point in replacing any plumbing fixtures—even so small a one as a faucet—to attempt to modernize as they replace, to install modern equipment rather than simply to try to match the antiquated original installation.

Major Functions of a Plumbing System

The two major functions which a plumbing system is designed to accomplish are: (1) to distribute water economically and efficiently to the points where it is required; (2) to dispose of waste materials effectively and without annoyance to the tenant. A properly designed plumbing system should give the property manager very little trouble, if an adequate system of inspection and maintenance is in force. Unfortunately, however, the plumbing systems in the older buildings (and in a few of the newer ones) cannot be classified as properly designed.

Since the two major functions of the plumbing system involve the transportation of water, a knowledge of the characteristics of water is necessary for a thorough understanding of them. We know that water is perfectly fluid between temperatures of approximately 32 degrees Fahrenheit and 212 degrees Fahrenheit; that, at ordinary pressures,

water freezes at 32 degrees and at 212 degrees is transformed into steam. We all are likewise familiar with the fact that water expands when it freezes. Consequently, the prevention of freezing the water in a plumbing system is one of the most fundamental precautions the property manager must take, since the expansion caused by freezing of water is sufficient to burst pipes and can be the source of very considerable maintenance expense.

Supplying Water for Washing

We distribute water in a house or apartment building for two primary tenant uses, washing and drinking. From the standpoint of washing, whether we are considering washing clothes, washing dishes, or washing babies, it is practically a requirement in our day that an adequate supply of hot water be made available. It is possible to get this water too hot; in fact, since water is normally distributed under a certain amount of pressure, it may be distributed to the hot water faucet at heat even higher than 212 degrees Fahrenheit, with the result that when the faucet is opened and the pressure relieved, the water turns into steam. This may cause a very serious burn. On the other hand, lukewarm water is not only a source of possible annoyance to tenants, but may also result in a very considerable waste of water. This waste occurs when the tenant lets the water run for a while, hoping it will get hotter; and also because of the fact that, for some uses, a small amount of hot water will do a better job than large amounts of lukewarm water. If you are in a community where the water is metered and paid for on the basis of actual consumption, this is a very important consideration. Generally speaking, it is considered that approximately 140 degrees Fahrenheit is a satisfactory temperature for most hot water uses. If the building is large enough to justify it, a thermostatic control can be installed on the hot water-heating system so that the temperature of the water can always be held within the limitation of 130 degrees to 150 degrees.

As regards cold water for washing and for other uses, the only major problem presented, from the standpoint of satisfying the tenant, is the softness of the water. Waters containing any considerable amount of chemicals in solution are called "hard" waters, and are a source of annoyance to the consumers of water, particularly because they require a great deal more soap for washing than ordinary waters, and are also hard on the skin.

Supplying Water for Drinking

Water used for drinking, however, is a different matter, and in many cases presents a most serious problem, requiring the attention of an expert. Water may be unsuited for drinking, either because of a disagreeable odor or taste, or from the standpoint that the bacteria or amoebae which it harbors are spreaders of contagious diseases. Traditionally, the most common serious disease spread through the water supply is typhoid fever. In our larger cities, the municipal water supply is usually treated either by the introduction of chemicals to kill bacteria, or by filtering the water in order to remove bacteria. As a consequence, the property manager ordinarily relies upon his municipal

government to protect his water supply from dangers of this sort.

The matter of rendering drinking water palatable from the standpoint of odor and taste is not a matter of uniform standards, but rather one of local custom. The drinking water of cities where chlorine is used as a health measure may be quite distasteful to visitors from other cities not employing this method, but perfectly acceptable to local residents who have become accustomed to it. This situation may result in the necessity for choosing some means of improving the taste of chlorinated water in hotels and restaurants catering to transient trade, while it would be wasteful to spend money for the same treatment in establishments catering primarily to local residents.

Chemistry of Water

Aside from the question of satisfying the user of water, chemical elements in the water supply itself are often a matter of concern to management because of their effect on the pipe lines through which the water passes. There are two general classes of compounds which make water "hard": (1) those containing calcium, magnesium, aluminum, iron sulphates, nitrates, and silicates which result in so-called "permanent hardness"; (2) those containing carbonates, bicarbonates, or hydrates of calcium, magnesium, and iron which give "temporary hardness" to water. In some cases water is both temporarily and permanently hard. Substances producing temporary hardness remain in the solution by virtue of the presence in the water of carbon dioxide. Lime is used to treat temporary hardness; and acts by removing the carbon dioxide, thus causing the materials to precipitate which make the water hard. Permanently hard water must be treated with sodium carbonate or barium carbonate.

However, these comparatively simple treatments are recommended only where the water softening process is a fairly simple one, and where the required reduction in hardness is not too great. If a major water softening problem is presented, the advice of a specialist in water conditioning or that of a reputable company selling chemical treatments for water should be obtained. When trading with the commercial dealer in water softeners, however, it must be remembered that most of the water treatments sold are priced at far more than the cost of the chemicals which they include; therefore, the progressive property manager should attempt to familiarize himself (or have someone on his staff become familiar) with the modern methods of water conditioning, so that wherever possible chemical treatment may be applied only as actually needed, and at a cost as close as possible to the actual expense of the chemicals used.

The effect of hard water, in either a plumbing system or a heating system, is the gradual building up of a deposit inside of boilers, pipe lines, traps, etc. When this takes place on a small scale, it is not a problem of major concern, and is even regarded by some engineers in the light of a protective inner coating on the metal surfaces, protecting them against pitting and corrosion. However, when this deposit accumulates over a long period of time, it may reduce the inside diameter of pipe lines to a considerable extent; and, as regards boilers and hot water heaters, it will

considerably reduce the efficiency thereof, by making it more difficult for the heat to pass through the heating surfaces to the water. This may also result in a rapid deterioration of the boiler metal, thereby greatly increasing the danger from explosion.

The deterioration of metal piping through which water passes is also caused by certain elements in the water supply which corrode metals. The two things which must be present in the water supply in order to bring about corrosion in iron and lead piping are oxygen and some form of acid. In this respect, soft waters are more corrosive than hard waters; and, if treatment is applied to a hard water in order to reduce the hardness, care must be taken that too much treatment is not applied, lest the natural corrosive action of the water on the piping be increased to an uneconomic degree.

Removal of Waste

The major problems in waste removal are met if the plumbing system is properly designed and constructed in accordance with modern standards to promote a continous flow of waste water, to prevent any possibility of "backing up" of sewage, and to protect supply lines from any contamination from waste lines. The major problem confronting the property manager in regard to the maintenance of waste lines arises from the fact that, over a period of time, waste materials accumulate along the sides of the pipes, restricting and, in some cases, even stopping the flow. In buildings of any size where experience proves this to be a constantly recurring problem, waste lines should be treated on a regular schedule to keep them working at their maximum capacity and free from obstruction. Various commercially prepared chemical mixtures may be used for this purpose. The basic ingredient in most of these compounds is sodium hydroxide (caustic soda). In purchasing "trade name" products for this use, the property manager should be sure that he is not paying several times over four cents per pound, which is the approximate price at which this basic chemical is commercially available.

Where waste is accumulated in soil pipes with a very long run, or with shorter runs over a considerable time, it may be necessary to rod out lines, and rodding is a long and laborious procedure. There are some modern motor-driven sewer rods which can accomplish five to twenty times the work a man can do in an hour. These machines cost from $125 to $1,000, and unless the amount of work of this kind is very considerable, most property managers will find it advisable to rent them, or to contract for the rodding out of lines rather than purchasing the equipment itself.

Checking Water Waste

A systematic check of water waste is advisable in any building where the possible saving in water expense justifies the labor. Comparative records should be kept of the water consumption of all comparable buildings managed, preferably expressed in terms of consumption on a common basis, such as "per person per day," or "per bathroom per month."

Dripping faucets are one of the most common types of water waste. They should not be tolerated, since the instal-

lation of new washers is a simple job for the janitor. Dripping faucets result in increased water expense, and also wear out the faucet seat. It is well to remember, when faucets are being replaced, that those of the renewable-seat type are much more economical over the long run than a cheaper faucet lacking this feature.

Where flush-valve toilets are installed, it is advisable to check the valves periodically to make sure they are properly adjusted. A valve which uses too much water for flushing is wasteful; one which uses too little water will be flushed several times whenever it is used, and perhaps waste even more water.

A simple method of checking on water system leaks is to read the water meter during an interval in which there is little or no use of the water by tenants—perhaps between 1:00 and 5:00 A.M. This should be done on a regular schedule where such reading involves no change in the hours of the building employees. Where it requires the attention of an individual who works regularly during the day, common sense requires that it be limited to cases where waste is actually suspected.

In 1938, the Chicago Bureau of Water made a survey of water consumption in 205 apartment buildings, containing approximately 60,000 rooms. With an average ratio of 1.06 rooms per person, the average daily consumption per capita was 96¾ gallons. This is a fairly typical consumption for a very large city in which the residents have become accustomed to use water freely; in smaller cities, the average consumption is generally lower.

The author herein sets forth the five "rights" of purchasing policy and shows how to apply them profitably.

PURCHASING

By *William H. Carpenter, C.P.M.*

THE operation and maintenance of income property require hundreds of items of supplies, materials, and equipment and numerous services. These include furniture and furnishings for public areas and tenant spaces; cooking ranges and refrigerators; cleaning supplies; fuel; labor and materials for repair, alteration, and decorating work; replacement parts and fixtures for heating, plumbing, air conditioning, lighting, and transportation systems; uniforms; and various services such as pest extermination, general cleaning, window cleaning, elevator maintenance, water treatment, oil burner or heating plant servicing, gas, electricity, telephone, and servicing of radio equipment.

To fill these needs, the managing agent or his purchasing agent should have a working knowledge of building construction and should be thoroughly grounded in operation and maintenance. He will need some of the knowledge of the engineer, the chemist, and the mechanic. He should be a shrewd trader, a good statistician, and have good judgment and common sense. The five major requirements of his job may be expressed thus:

"Buy the Right Quality
in the Right Quantity
at the Right Time
from the Right Source
at the Right Price."

These five "rights" just about embrace his whole policy of purchasing. Now let us see how he shall proceed to follow them.

Quality

Nearly everything he will buy will be available in several qualities. The selection of the quality best suited to the particular need, taking into consideration the value, class, and type of the property, and its budget allowances, will rest on his judgment and common sense. Often, his decision will be made after analyses and samples have been submitted—as in the purchase of fuel, for example. He will not select a high priced Oriental rug for floor covering in the lobby of a low-rental apartment house. The quality would not be in keeping with the class and type of the property and the budget allowance would be exceeded. He will learn that quality is not inherently a matter of price. Some of the most satisfactory cleaning materials are lowest in price. He will remember, however, that it rarely pays to buy shoddy materials.

Quantity

The rate of consumption, durability of the goods, facilities for storage, safety of the materials from damage and pilfering, and the price advantage for volume are factors in determining

quantity. Price advantage for volume can be secured, usually, for deliveries in small quantities over a period of time. The storage of large quantities of materials of everyday use in a building sometimes leads to wasteful use. It is good practice for a building which does not have a general storehouse to limit deliveries direct to it to one months' supply, if price advantage can be obtained. Materials that deteriorate rapidly or are subject to breakage should not be stocked in quantity. Packaged goods are cheaper in standard containers than in broken lots. A safe place for storage of supplies where they can be kept dry and under lock should be provided in each building, and, if it is at all practical, only one person should have access to that place. Accurate inventory and consumption records should be kept to check wasteful use and as a guide for the purchasing agent.

Time

Purchases should be made and deliveries arranged so that materials are at hand when needed. Advantage should be taken of seasonal price fluctuations, and price increases should be anticipated whenever this can be done. Fuel is usually cheaper in the spring. Awnings and canopies can be repaired or re-covered for less money in the winter than just before they are to be installed. Better prices can be obtained for painting and decorating during periods when painters have less work, as between renting seasons. The supply of material and labor for repair work should be co-ordinated so the time of labor will not be wasted.

Source of Supply

Some articles, such as specific makes of refrigerators, have but one source of supply—the manufacturer or his distributor—and that on a wholesale basis. Such articles are usually on a fixed-price basis, and the judgment of the purchasing agent is concerned only with a selection of brand. Selection should be made only after a careful comparison of quality has been made and in relation to price, use, and expected life.

Sources of supply for articles of everyday use for maintenance and repair work should be selected only after the integrity and reputation of various dealers, their stocks, and their ability to make prompt deliveries and render efficient service have been considered. Price lists in comparable form for checking (the purchasing agent's own form preferably) should be obtained frequently. The selected dealers should be required to conform to competition in price, or a substitution of dealers should be made.

After the dealers for specific types of articles have been selected, orders may be placed with them in a routine manner subject to frequent price checking and reports on quality.

Fuel should be purchased on contract for the heating season, and deliveries required as ordered, whenever this is possible. Analyses and samples should be obtained, and comparative tests should be made before selecting the source of supply. A fixed price for the entire season is desirable, but when this cannot be obtained a maximum or ceiling price for later deliveries should be required.

Gas and electric cooking ranges and plumbing and lighting fixtures may be purchased, usually, direct from the manufacturer or from his distributor.

In larger cities, wholesale supply houses are available which carry the lines of several manufacturers.

The purchase of furniture and furnishings and heavy equipment such as steam boilers, radiators, central refrigeration, air-conditioning apparatus, etc. is less frequent and is a matter of shopping and comparison and the selection of a source of supply for each transaction.

Too close a relationship between building employees and sources of supply should be discouraged, and gratuities to employees should be prohibited on penalty of dismissal.

A purchasing agent must keep himself informed of materials available and new materials as they are developed. Much advertising literature will come to him. A file of such papers and catalogs, arranged by products for ready reference, will be valuable. Several of the real estate and trade publications have articles on equipment, materials, and their uses. A card index of these articles should supplement the catalog file.

Price

It is the duty of a purchasing agent to obtain on every purchase the lowest price consistent with desired quality and service. His price of success, like the price of peace, is eternal vigilance. On the larger items of less frequent purchase his thorough canvass of the field at the time of need is necessary. Prices of the articles of constant use for which established sources of supply are used should be watched and checked frequently with the prices of competitive dealers. These policies will effect substantial savings.

Repair and Alteration Work

It is necessary to "buy" or negotiate contracts for the labor and materials necessary for repairs, alterations, painting, and decorating—when such work is not done by employees of the buildings.

Painting and decorating are in process most of the time at one place or another. It is not practical to secure bids for each individual tenant space job. An established source of supply, as exists for purchasing maintenance supplies, may be provided for each property.

Some managing agents have found the unit-price bid to give satisfactory results. This plan provides that specifications be prepared and estimates be secured from several painting contractors to cover standard one-coat paint jobs or painting and papering jobs in each size unit in the building. If units of the same number of rooms vary in wall space, the variations should be reflected in the price. For additional coats of paint, extras are allowed at proportionate or specified prices. A price limit per roll is specified for wallpaper; and when more expensive paper is selected, the additional cost is allowed to the contractor as an extra. This extra for wallpaper should, as a rule, be charged to the tenant. Plaster repairs should be allowed as extras also. If the contractor includes them in his unit price he will need to make that price sufficient in amount to cover any contingency. Practice has shown that it is more economical to pay for work performed than to average extras.

Unit-price bids may also be based on the unit of one room, and the cost of the suite determined by multiplying the price amount by the number of rooms.

On this basis, bathrooms and hallways are usually not counted and the cost of a three-room-and-bath apartment will amount to three times the unit price. Because of the variation in room sizes within the suite, this room-unit basis is less satisfactory than the suite-unit basis. Better than either is an estimate on the suite-unit basis broken down to the price for each room in the suite. The cost of partial redecorating jobs can then be determined from the bid and a cause of argument with the contractor is removed.

When such a unit-price bid arrangement is made the purchasing agent should not consider it permanent. New bids should be obtained periodically and not less than once each year.

Exterior painting and the decorating of public areas are undertaken less frequently than work in rented spaces. Nevertheless, specifications should be prepared carefully and in detail for each job. It is desirable to specify what materials shall be used as well as to describe the scope of the work and the manner in which it shall be done. Contractors will then be bidding on the same thing, which is often not true when specifications are too general. If "standard specifications" are used as a basis for the request for bids, the variations that will be incident to each job should be set forth clearly.

Small repair work that cannot be done by building employees and that does not warrant separate estimates can be satisfactorily handled by independent mechanics on a time-and-material-plus-profit basis. More extensive repairs will require specifications and competitive estimates.

Alteration, modernization, and remodeling work usually proceeds from architects' or engineers' plans and specifications. It should be borne in mind that these often must be submitted to municipal authorities for approval. For some classes of repair and replacement work—such as roofing, for example—manufacturers of materials to be used maintain engineering departments which will co-operate by providing inspection and the writing of specifications.

When purchases include labor in addition to materials, the purchasing agent should co-operate with the insurance manager to secure proper certificates, or policies, of liability and compensation insurance.

Service Contracts

It usually falls within the scope of the purchasing agent's job to negotiate contracts for various services. Among these services might be elevator maintenance, heating plant or oil burner servicing, water treatment, pest extermination, general cleaning, window cleaning, and the servicing of radio equipment. Some of these services can be rendered, sometimes, more economically and satisfactorily by building employees, and sometimes by contractors. The various phases of this problem must be solved for each building according to the best judgment of the managing agent. If contractors are used, proper insurance protection should be secured from them.

Utilities

Utilities contracts are often negotiated by the purchasing agent. Included in this class of services are steam (from a central station), water, electricity,

HARMON ORGANIZATION, INC. Building _____ No. _____

Inventory and Requisition Page

Maintenance Equipment and Supplies Month ending _____ Date _____

DESCRIPTION ITEM	BRAND	SIZE	ON HAND TODAY	USED SINCE LAST REPORT	ORDER NOW	DEALER	APPROVAL		ORDER NO.	DATE	TYPIST	INVOICE COST	INVOICE DATE
Soap Powder													
Liquid													
Cake													
Carpet Shampoo													
Special													
Polish - Metal													
Furniture													
Oil - Lemon													
Lubricating													
Kerosene													
Grease													
Wax													
Paint Cleaner													
Acid - Ox. - Mur.													
Alcohol													
Ammonia													
Disinfectant													
Tri Sodium Phosphate													
Calcium Chloride													
Drain Solvent													
Boiler Compound													
Sand Paper													
Steel Wool													
Waste - Rags													
Fuses													
Bulbs													
Bulbs													
Toilet Paper													
Paper Towels													
Brushes - Scrub													
Dust													
Flue													
Dusters Feather-Wool													
Mop Handles													
Mops - Wet													
Dry													
Brooms - Push													
Corn													
Hand													
Sponges													
Chamois													
Squeegees													
Tanks & Pails													
Wringers													
Cans - Ash													
Garbage													
Waste													
Oil													
Bags Canvas-Burlap													
Shovels-Coal-Short													
long-coal-ashpit													
Snow													
Scrapers - Ice													
Bars-Slice-Shaker													
Ladders - Folding													
Straight													
Drop Cloths													
Hose - feet													
Trucks - can													
Carpet Sweepers													
Carpet Scrub Machines													
Vacuum Cleaners													
Waxing Machines													
Pumps - Portable													
Plungers-Toilet													
Snake wires-augers													
Belts - Safety													
Lawn Mowers													
Shears													
Rakes													
Shower Curtains													
Shower Curtain Pins													
Toilet Seats													

By obtaining the filling out of this monthly report, the purchasing agent has in his possession a requisition, inventory, and consumption record of cleaning and maintenance supplies for each building.

gas, and telephone. For some of them, there are different rate classifications, and the purchasing agent must select the classification most favorable to the building.

Requisition

A requisition is the initial record of each purchase of materials, supplies, or equipment and of each piece of repair, decorating, or alteration work. It will originate with the building manager, superintendent, janitor, or caretaker or with the district manager or others of the management staff. It should, of course, be dated and show where, when, and what quantity of material or what work is wanted, containing a description sufficient to identify the material or to indicate the scope of the work.

When properly approved, it becomes an order to the purchasing agent to buy or to contract for work or service. A form should be devised to conform somewhat to the purchase order which will be copied partially from it.

Cleaning and maintenance supplies are items of constant need. For such items, it has been found practical to develop a monthly report in list form which becomes a requisition, inventory, and consumption record for each building. With the use of this report (see illustration on page 381) materials are purchased only once each month for each building, unless an emergency requires otherwise. The report is also helpful in standardizing supplies and in discouraging wasteful use.

Purchase Order

When the source of supply has been determined or the contractor or mechanic has been selected, a purchase or work order, as the case may be, is issued. Separate forms for vendors and contractors may be used, or a combination form may be adopted.

A practical combination form is illustrated on page 383. The actual form is in quadruplicate. The original goes to the contractor or mechanic, the second and third copies to the building, and the fourth copy to the office file. The second copy is held at the building until the work is completed or the merchandise is received. It is then "certified" by the building manager or superintendent and returned to the office to be attached to the invoice. The third copy is retained in the building superintendent's or manager's file. The vendor or contractor is required, for purposes of identification, to quote the order number on his bill and is limited to the work or merchandise shown on the order. He must secure another order for any additional work or material. The certification on the second copy of the order by the person in charge of the building should not be accepted as conclusive. All work should be inspected by the district manager or by someone else on the management staff, and such inspection should be indicated on the bill. All equipment should be inspected and supplies should be spot checked.

Order Register

Promptly on being issued, purchase or work orders should be posted from the fourth (office) copy of the order to an order register. This register will guard against duplicate payment by requiring that bills and invoices be posted against original entries of the orders. The register should be in card form having a card for each unit and each

HARMON ORGANIZATION, INC.
140 Nassau St., New York
WORTH 2-1111

Nº 792 A

Deliver to- Date_____
Perform work at_____ Prop. No._____
Apt. Tenant

SPECIFICATIONS:

This order number MUST BE QUOTED on your invoice. If partial delivery is made and the balance of the order is not delivered within five days, cancel those items not delivered and ask for or await a new order. ONE INVOICE only will be received against this order.

TO

•
•
•

CHARGE AND INVOICE FOR ACCOUNT OF

_____
Signature

GAC-1-41 20M 7285

The purchase order form reproduced here is actually in quadruplicate when used, though wording varies for each of the four pages. The original (illustrated above) goes to the contractor or mechanic, the second and third copies to the building, and the fourth copy to the office file.

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class of expenditure not applicable to a unit, and the cards should be filed vertically by buildings in unit order. A six-by-nine-inch card has been found to be practical. Statistics of commitments can be taken off readily from an order register so prepared. It will also serve as a consumption record for utilities and for fuel, if periodic inventories are taken and applied to it. It will be valuable for reference as to work previously done. Items appearing on the requisition inventory listing cleaning and maintenance supplies need not be entered in the order register. Invoices may be posted direct to the requisition inventory.

Discounts

Trade and cash discounts are usual in most transactions of the purchasing agent. The purchasing agent must be alert to take advantage of all such savings and he should set up a routine to insure payment of invoices within the cash-discount period.

The problem of rent credit and collection can be solved, as the author shows, and income also stopped up.

Credits and Collections

By *William F. May, C.P.M.*

DISCUSSIONS of the "Barter System" have not yet led us to contemplate rental payments in the form of horses, corn, provisions, or other goods, or in services or manual labor, such as the ploughing of a certain number of acres for the landlord yearly, or the ringing of a church bell at certain hours. No, we still think of rent as "the compensation which a tenant pays to the landlord in consideration of the landlord allowing the tenant to occupy the landlord's premises."

The word rent is derived from the Latin "*redditus*," meaning "a return." It has been defined as "a certain profit, issuing periodically, out of the lands and tenements corporeal; and may be regarded: firstly, as something issuing out of the land, as a compensation for possession during the term; and secondly, as an acknowledgment made by the tenant to the lord of his fealty or tenure."

Rent Payments

In England, rents are usually due quarterly on the feast days: Lady Day (March 25); Midsummer (June 24); Michaelmas (September 29); and Christmas (December 25). Rent payments are made at the end of the quarter. In the United States, landlords or landlord representatives usually specify payments to be made monthly and in advance so that expenses, including taxes, might be met promptly, and interest charges be thereby avoided.

Generally speaking, statutes and common law now cover tenancies to such an extent that leases of great length are almost unnecessary. Each tenancy, nevertheless, seems to create circumstances which should be clarified as to intent. Our company,* therefore, formulates a contract stipulating among the provisions the amount of rent to be paid and the indication when, where, and to whom it must be paid in exchange for possession, or use, of a property.

A landlord by agreeing to permit use and occupancy extends credit to a tenant in that he thereby expresses his belief that the tenant is capable of paying the rent reserved. In a commercial lease, the rate of rent and the term of tenancy often form an important part of another creditor's rating of the tenant to the extent that he will extend credit and furnish the tenant with a substantial inventory. Some leases have a market value and may be sold and resold sometimes at higher than face value as conditions warrant. Leases may also be used as credit instruments on which money might be loaned.

*Editor's Note: Mr. May is with the Fidelity Union Trust Company, Newark, New Jersey.

The size or type of property involved, together with trends in the area, will indicate the safety of the income from a lease and thus determine the amount of money it will bring in resale or for borrowing purposes. It will be readily appreciated that a property of poor practical design would bring a smaller rent because of its restricted use, whereas a modern, well-designed rentable unit would bring a higher rental and, likewise, the lease thereon a higher credit rating.

A property manager should accept a tenancy proposal only after extreme care has been used in obtaining credit information regarding the tenant prospect. This information may be procured through investigation of data assembled on the tenancy proposal form which is filed by the tenant at the time he interviews the representative of the property.

Scientific Methods Needed

Development of America's financial system has made it imperative to apply more or less scientific methods to the operation of property, especially investment property. To that end competent real estate or property managers have developed a technique and now offer their services to property owners.

Out of experience a more careful selection of tenancy is obtained, for the distinction between a good credit risk and a potential lawsuit must be made at the time a prospective tenant applies for space. The successful property manager knows that the someone he is working for "demands results," and that it does no good to save a dollar on the price of coal or other commodities if poor rent collections are evident.

I. CREDITS

A rental prospect must be carefully investigated. This is necessary to determine whether his account is to be good income or a bad debt in its effect upon the value of an investment property and the original anticipated Rental Roll. The component parts of an investigation are numerous and include:

1. The prospect's prior tenancy record
2. His character references
3. His credit references
4. His ability to pay or his earning power
5. The use to which he intends to put the space to be rented.

Forms have been developed for use in checking all of the items making up the tenant's credit rating and they must be used with tact and courteousness, or the desired results will not be obtained.

A good form should include information forming a nucleus of a case history enabling a property manager to determine fully the desirability of a prospective tenant. Such a form would indicate:

1. The full name of the prospective tenant and his wife and/or co-lessees
2. The prospective tenant's present landlord's full name, address, and telephone number
3. A record of the length of time the tenant lived at his present residence
4. A record of other places of residence or place of business covering a prior period of several years
5. Evidence of payment of last rental due at last residence or place of business
6. Personal references with addresses, etc.

6A. Family data (if a residential rental)
   a. Number of adults
   b. Number of children
   c. Description of pets, if any

7. Use to which space will be put
8. Present employer and his address
9. Salary or income data
10. Bank references
11. Address of property in question

12. Space of interest (number of rooms, etc.)
13. Rent involved
14. Time of desired possession
15. First rental due date
16. Term of tenancy (lease, or month to month)
17. Name of interviewer with signature as witness
18. Date of interview
19. Source of inquiry (introduced by Mr. John Doe or broker)
20. Complete detail of any reconditioning work to be done
21. Provision for special agreements as to payment for electric current, water, garages, or special services
22. Record of rent deposit made and a notation that the balance of the first rent will be paid before possession is given
23. Record of security deposit accompanied by full data as to date of return or its application as rent
24. Provision for prospective tenant's signature including an indication that he had agreed to rent or lease
25. Provision for acceptance of the proposal, subject to approval of owner or authorized representative.

This assemblage of data if presented on forms of improper size will tend to discourage a prospective tenant. Therefore, it is desirable to carefully plan its composition, possibly printing on both sides of a sheet or card in order to reduce its visible volume. Only experience can convince a property manager of the value of each detail in such a form.

Correspondence or interviews with the prospective tenant's employer will usually be productive of useful information indicating the tenant's ability to pay the rent and the security of the tenant's income. Credit reports or financial statements will also be of great assistance.

Rents or leases expressed as credits reflect the probable income for a property and, also, through capitalization of the total income, reflect the value of the property. Basically, however, they form the fund from which the operating costs of a property are deducted. In this deduction due regard is given to the net income which the property owner gets, since to an owner the property is primarily "an investment from which a maximum and satisfactory return must be obtained."

We have long since lost our appreciation of architectural masterpieces when the same have not been productive investments. In order to preserve the principal of the investment, to produce through sound, practical, and economic operation of the property a net income commensurate with the value of the property as a whole, and to create an attractive investment, it is necessary to maintain rental values and resultant income at the highest obtainable levels.

Furnished Apartment Properties

In the operation of some types of properties, particularly furnished apartment properties, the credit problem is most acute since the tenancies are usually of short-term duration.

Travelers and people whose employment is unsettled or people who are unable or unwilling to maintain a home, because of circumstances, make up a large part of such tenancies. In the case of travelers it is often difficult to check references before giving possession, because of the time element. However, the process of checking references should proceed with all dispatch even though a substantial rent payment of one or two months rent has been paid prior to occupancy. It may be well at this point to caution against prospective tenants who request immediate possession, for the real reason for their request may not be revealed. The fastest, and yet accurate, methods of in-

vestigation should be discreetly employed in such cases.

One of the best safeguards, however, is a qualified personnel capable of understanding and evaluating appearances and statements of the prospect. Good tools and a good workman usually make for good work: therefore, a property manager, besides selecting his personnel carefully, should provide adequate facilities to receive a prospect, make proper records, and provide constant supervision. Careful study of the laws governing the operation of hotels and rooming houses will reveal the rights of an owner or operator, particularly regarding collection of rents. But the best protection is strict enforcement of rent collection, following careful selection of tenants, and being prepared to take immediate action against delinquent tenants.

Provision should be made to have the office of the building adjacent to the entrance or lobby so that close supervision may be obtained and tenant rent payments accepted readily. Yet the privacy that such matters deserve should be duly considered. Rent bills should be used, as a practice, but care and courteousness should prevail. Proper receipt forms containing all important data and, in addition, well-supervised rent ledgers are a necessity in that the status of an account should be instantly determinable. Provision should also be made for summarizing daily receipts and totals.

The desired result—a maximum gross rent and a sound maximum net rent—is decidedly affected by credits and collections, for if the selection of credit risks is poor, then the collections, and consequently the gross income and net income, will be poor. Poor credit risks when revealed as bad debts result in high tenancy turnover and vacancy losses. In this manner the sale value of the property as a whole is impaired. Should a building, because of poor credit risk selection, obtain a reputation for high tenancy turnover, its value may be permanently lessened.

Short- and Long-Term Leases

The creation of credits or tenancies may involve grants of possession for short or long terms. Ninety-nine years is usually regarded as a maximum in term while some tenancies may be for only a few days. The longest-term leases usually pertain to land since it is generally believed that buildings do not have an economic useful life exceeding fifty years. It can, therefore, be appreciated that the buildings erected on a plot subject to a ninety-nine year lease may be replaced several times during the duration of the lease, depending on the use for which the ground may be economically improved. Such leases are, therefore, termed "ground leases." Under some ground leases the buildings may revert to the land owner without cost to him, whereas, under other leases the land owner may be required to pay to the lessee a predetermined sum of money for the improvement.

Economic developments in the past fifteen years have tended to discourage the use of leases of even ten years' duration, principally because of a tenant's unwillingness to commit himself to rental payments to which a landlord might be justified in agreeing. The landlord also has been unwilling to attempt to foresee the future and thereby commit himself to accepting rental pay-

ments which may prove to be unequal to a constantly increasing tax burden. Some extended-term leases provide for equitable adjustment of rental rates, at periodic intervals, by arbitration. Other agreements may provide for minimum rentals with special provisions for tax burden adjustments and a stipulation for the landlord to obtain an equitable rent by means of a percentage clause whereby the landlord, for example, would obtain 10 per cent of the gross business of a tenant as rent. Different kinds of businesses are capable of paying different percentages dependent on the percentage of mark-up usual in each particular type of business. A gasoline station may pay one cent per gallon for rent and a clothing store might pay 8 per cent of gross sales.

Long-term tenancies usually require more provisions and stipulations than short-term leases since reliance on statutes might not accomplish the intent of the parties to the lease. This is mentioned in view of our constantly changing laws and the interpretation thereof. Business ventures, particularly in commercial areas, require reasonably long terms in order that tenants might properly finance and amortize initial costs of equipment and so far as possible be assured of the opportunity to establish a business with reasonable security. Also, long terms provide to an investor a protection against destruction of his loans to the tenant. Thus a lease may be regarded as a credit instrument.

Stabilizing Tenancy and Income

In an apartment property an owner realizes he must keep his credits flexible because his expenses are very flexible and may be subject to almost daily fluctuations, dependent, for example, on labor conditions. At the same time, however, the owner must stabilize the income by securing leases, thus assisting to stabilize sales costs such as space reconditioning, equipment costs, or possibly advertising costs. One of the results of leasing programs is usually a reduction of tenancy turnover and rent losses.

Reconditioning costs of a rental unit may require more than one quarter of the annual income. Stabilization of tenancy turnover usually spreads the costs over a period of several years and results in better annual net returns to the property owner.

In some localities and in some types of properties rental income fluctuates severely because of "seasonal evacuations." In the residential-unit field, though the trend is decreasing, some tenants habitually occupy heated rentable units in the winter and move each spring to a seashore or mountain resort, and place their household effects in storage. This practice has been discouraged by landlords requiring leases to expire in the fall of the year instead of in the spring, by general economic conditions, and by automobile influences. The latter trend is indicated because of its effect on seashore property incomes, for it is apparent that the losses formerly suffered by city properties in the summer have been shifted to the resort properties which formerly flourished.

Property incomes, rental values, and, consequently, credit values have also been affected in city properties through the influence of the automobile. The effect might be termed "Decentralization" in that it has meant a tremendous

development in suburban areas. Whereas formerly a person employed in a city usually arranged to live within the city and within a short distance of his employment and certainly within a few minutes commuting distance, he now daily travels as much as twenty to forty miles. This shift has meant lower rental values for city residential units and a lower rental value for commercial properties, for, as the residential movement was to the suburbs, so the commercial movement was to community shopping centers.

Incidental to the effective devaluation of rental incomes and the reflected property values, the taxation value proved itself economically unsound. Along with downward adjustments of ratable values, a corresponding increase of tax rates occurs, thus imposing the same or an increased burden upon the property in question and reducing the desirability of the property as an investment. This procedure decidedly affects credit ratings.

As a contrast, we recall periods wherein a landlord or property investor discounted vacancy losses, and sales costs likewise were almost inconsequential. Sales costs were at a minimum, because a property owner rarely had to advertise his space for rent and reconditioning costs were borne by the tenant. Today we hear of concessions or periods of free rent in some cases of several months duration and accompanied by reconditioning expense, even to the extent of floor coverings and temporary or moveable partition work, all at the expense of the landlord.

The foregoing digressions tend to indicate the importance of a leasing program, for, to summarize briefly, a successful program demands "stabilization of income."

Appraising Rental Value

A sound appraisal of the various component parts of a rental value must be made, including valuation of:

1. The property as a whole, considering its address, appearance, and attraction as a place of business or of residence
2. The equipment or facilities in the property
3. Services rendered — such as uniformed attendants, heat, gas and/or electricity, garage service, etc.
4. Size of the rentable unit, including consideration for the use intended compared fairly with other competitive offerings in the area
5. Facilities such as convenience to transportation, schools, churches, theatres, etc. Or, in the case of commercial units— relation to primary shopping centers with due regard to foot traffic count and the habits of the purchasing public.
6. Exposure. In residential units we look for light, air, and quiet surroundings whereas in commercial areas we look for prominence of location, taking into consideration corner locations, the effect of traffic, and in some instances the set-back from the street.

Form of Credit Instrument

After we have completely studied and appreciated the credit values of a rentable unit, we should consider the form of credit instrument. This brings us to the following study of leases and their important integral parts:

1. Although the date of the lease may seem unimportant in view of the fact that the date of possession governs the effectiveness of the lease, such notation should be made
2. A full exposure of the names of the lessor and the lessee, including full identification as to address, is important
3. The words of operation such as "leases or lets"
4. A full description of the rentable unit let, including property address incorporated
5. The covenant of quiet enjoyment such as "sole and uninterrupted use and occupation thereof" (except as restricted or limited by other provisions)
6. The term of the lease with clear expressions as to the commencement and termination dates

7. The consideration — the term rent involved
8. Provision as to method of payment, and as to where and to whom the payments are to be made
9. Affirmation of the tenant's agreement to pay the rent as provided
10. Covenants relating to use and subletting
11. Provisions for orderly conduct by the tenant; provisions for repair agreement, exhibition, or inspection of the premises by the landlord; and the placement of "for sale" or "for rent" signs upon the property
12. Provisions for re-entry by the landlord for breach of covenants, and provision for reletting
13. Provisions for continuation of tenant's liability after re-entry and until lease expiration
14. Provisions for liability of tenant for damage and repair to the premises excepting reasonable wear and damage by the elements
15. Provision for peaceful surrender of possession at lease expiration
16. Provisions for services such as heat, water, elevator service, lighted hall, and the like, and protective clause for landlord in event of accident or temporary cessation of service
17. Covenant by tenant to observe house rules such as display of signs, obstruction of halls, care of pets, storage of inflammable materials, refuse disposal, regulations regarding keys, playing of music after certain hours, etc. Such a covenant should also provide for addition to, or modification of, house rules upon proper notice
18. Provision to permit tenant to use other space such as the basement "by license," not by invitation, and at the tenant's own risk
19. Provision for extended coverage of parties to the lease to include heirs, assigns, successors, or representatives
20. Provision for witnessing or reaffirmation of agreement by signature of all parties to the lease and provision for proper witnessing or affixing of seals. It may also be necessary, or advisable, to provide locations for acknowledgments and assignments.

II. COLLECTIONS

Several methods of collecting rent are in general use. In a typical apartment property it will be found that one group of tenants prefers to pay its rent by cheque, through the mail. This group is usually the most prompt in payment; however, there are exceptions. Another group prefers visiting the office of the building or the office of the agent for the purpose of direct contact and registering complaints. A third group, usually the troublesome group, will be habitually late in making payments, and dunning letters and direct interviews will be required to collect from such tenants. Here let us remind you that if a tenant has difficulty meeting one month's rent, he will have more difficulty meeting two month's payment. It is, therefore, necessary to give this kind of rent collection strict supervision and to be ready at all times to proceed with an effective method of collection, or eviction, of a delinquent tenant.

Here again the law extends reasonable protection to a landlord. The only requirement is that the relationship of the landlord and tenant must have been clearly established. The statutes may differ in the various states but the common law offers sufficient remedy in most instances.

Methods of Effecting Collection

Some of the common methods of effecting collection include:

1. Presentation of bill for rent on due date
2. A ten day follow up or reminder
3. A fifteen day follow up with demand
4. Service of a "three day notice of demand for possession"
5. Procedure of dispossess through attorneys
   a) Obtaining judgment for possession
   b) Execution of judgment for possession by constable or others qualified

   (Note: This procedure may involve procurement of moving vans and removal of tenant's goods to a storage warehouse. In such event, the landlord is usually obligated to pay one month's storage.)
6. Distraint of tenant's goods and proceeding with sale thereof to recover damages may be used as an alternate to dispossess and removal of goods to a warehouse. This procedure, however, usually involves some risk in that a landlord might assume that the goods in the rented

space are the possessions of the tenant and, through error, neglect or overlook chattel mortgages or conditional sales contracts covering items purchased on a time-payment plan. Other complications have proved this method hazardous and perhaps expensive: for example, obtaining a collection of animals requiring feed or special care; or, as another illustration, the storage of a motor truck before it could be sold

7. Ejectment proceedings or writs of assistance are required in some instances where tenancy relationships are not clearly established. This procedure is more lengthy than dispossess proceedings and also requires the employment of a lawyer
8. In some locations a "Small Claims Court" gives assistance by entertaining suits and entering judgment for amounts under $50
9. Suits for arrears of rent may also be started against tenants in possession. These proceedings are brought in the District Court if the claim is under $500.

Collection of rents is generally a matter of tenant training in that, if payment is requested promptly and courteously, the habitually delinquent tenants will soon be determined and their names placed on a special list for careful observation.

The establishment of routine handling of this problem is recommended so that the daily collections may be closely supervised by building superintendents (if properly bonded), rent collectors, and collection supervisors.

Collecting Rents for Institutional Properties

Rent-collection routine for an institutionally-owned apartment property might consist of the following operations:

1. Rent billing by the management organization
2. Collection of rents by a building superintendent and/or representative of the management company
3. Deposit at a nearby bank of rents collected during daily routine; or, possibly, deposit of collections obtained by collection department of the management organization. Because of a desire to minimize losses through theft or burglary (even though the collectors may be protected through insurance), night collections might be required. If so, it is possible to make arrangements for night deposits at a convenient bank
4. Daily filing by the collector of record of collections with collection or accounting division of management company
5. Maintenance of tenant ledgers and other records which furnish readily ascertainable status of individual tenant's accounts and collection totals proved with bank deposit slips, etc.
6. General supervision of the results of rent collection efforts is easily maintained with the aid of exposed-edged cards in book form, controlled by a protected system of indicator tabs in various colors, employing a red tab usually to indicate a special, troublesome, or delinquent account. Special tabs should also be provided to indicate leases or accounts involving graduated rentals or percentage leases, so that adjusted bills or accountings may be made
7. Collection, or operating, graphs, showing relationship of collection to 100 per cent rental, current rent billings, vacancy losses, and rent losses are an effective means of disclosing operating efficiency. To indicate net income returns to a property owner, operating costs are often made part of the same graphs
8. Collections and disbursements are also set forth in monthly statements which are furnished to a property owner. The forms used for this statement work should be designed to present the collection data in detail, consisting of a record of the identification of the rentable unit, the number of rooms in the unit, the tenant's name, the arrearages (if any), the current rent charges, special credits or adjustments, collections made, and the balance, or arrearages. Where special services are rendered, a like system of recording should be followed
9. Quarterly, semiannual or annual recapitulations are also used for comparison purposes. Sufficient segregation of the component parts should always be provided to permit ready interpretation and comparison of data.

Collection Policies

Collection policies should be flexible, but firm. Flexibility is needed to permit adjustment for extenuating circumstances such as where a tenant's income is obtained quarterly or on a special day of the month. The use of a little salesmanship in explaining operating requirements will be most effective in obtaining a tenant's co-operation and

rebudgeting so that prompt rental payments can be made. Courteousness should be the watch-word. Realization that a tenant of an apartment desires to make the apartment his home should produce a neighborly attitude in all of the employees of the management company. Collection difficulties are often intermingled with operating problems and it is for this reason that neighborly understanding is stressed.

Flexibility, however, must not reach the point where collection efficiency is impaired to the extent that arrears are permitted to accumulate and net returns are thereby diminished.

A Life Stream

Credits and collections are the life stream of a property, since they permit the normal expenditures for taxes and maintenance to be made. Yet the desire for obtaining gross income should not permit going beyond what are normal expenditures for sales costs. In other words, the desire to obtain additional income through a new rental, should not, for example, require you to spend two dollars per roll for wall paper if one dollar per roll paper is standard for the building. Credit, likewise, should not be carelessly granted merely for gross income purposes only.

Collections are but a means to an end and that end is a profitable return sufficient to justify the investment value of the property.

The information in this article will enable you to set up a complete set of books and records.

Accounting and Record Keeping

By *J. William Markeim C.P.M., M.A.I.*

THE property manager or his staff must consider seriously accounting, record keeping or bookkeeping, and the preparation of intelligent reports. In turn, the information gathered for these reports serves many useful purposes: it can be used for comparison; actual results can be compared with estimated budgets; required State and Federal reports can be easily and promptly prepared and filed; and, through study, better results can be obtained, more efficient management adopted, and in general a more profitable operation effected in every phase of management.

It is important and necessary to keep proper records, and then, in a simple and intelligent manner at regular intervals, to present to clients and owners accurate figures of income and expense in a statement form that will be thoroughly understood and will show the results of your management. In addition, such a statement may be used as statistical data and to compare, from time to time, periods of operation. Furthermore, by the aid of such a statement, your client, or his representative (usually a certified public accountant), when examining and auditing your accounts, will be more likely to report his findings as correct, and thus to agree with the management office.

Consequently, in setting up the Accounting Department of a management office, we must consider both the management and the client.

Records must be maintained accurately and efficiently, but should not involve detail of such scope that it can neither be comprehended nor properly recorded. In other words, your system should be simple, and the layman as well as the expert should be able to understand it readily. When setting up systems of accounting, and bookkeeping, and records, in addition to keeping them simple and free from unnecessary detail, you should use headings or titles of accounts in the Ledgers or subsidiary books that will best be explained or understood by their very name. This should be particularly borne in mind as any part of this article is read or put to use.

Ledger and General Ledger

In a small organization, all books that are used can be combined in one book and called the "Ledger," which includes subdivisions. You can purchase a loose-leaf ledger from any stationer. The first fifty pages should be called the "Journal" and should consist of two columns on each page, one for the recording of debits and the other for the recording of credits. The next fifty

pages should comprise and be called the "Cash Receipts Book." It can have as many columns as required. The next fifty pages should be used for and called "Cash Disbursements." This can also have as many columns as required. Another fifty pages should make up and be called the "Purchase Book." Another fifty pages should be set up as, and called, the "Sales Book." If the business is a large one, an individual book or ledger should be used for each book. After these accounts have been set up, ledger sheets should be obtained and called the "General Ledger." This ledger should be divided into the following:

1. "Asset Accounts"
2. "Liability Accounts"
3. "Income Accounts"
4. "Expense Accounts."

For index purposes these Accounts may be numbered as follows:

Asset Accounts

ASSETS: (Numbers 1 to 99.)
Some Asset Accounts may be:

1. Cash—General
2. Cash—Trust—Agency
3. Cash—Petty
4. Cash—Reserves
5. Deposits
6. Notes Receivable
7. Accounts Receivable—Regular Accounts
8. Accounts Receivable—Maintenance
9. Accounts Receivable—Insurance Accounts
10. Accounts Receivable—Debit Balances. Agency Accounts
11. Accounts Receivable—Project Advances
12. Investments—Bonds
13. Investments—Stocks
14. Investments—Mortgages
15. Investments—Building and Loan Associations
16. Inventories
17. Real Estate—Land
18. Real Estate—Buildings
19. Real Estate—Developments
20. Utility and Service Company Deposits:
    a. Water
    b. Gas
    c. Electricity
    d. Sewerage
21. Sidewalks and Curbs
22. Grading
23. Streets
24. Sewers:
    a. Sanitary
    b. Storm
25. Construction Accounts
26. Building and Maintenance Equipment
27. Furniture and Fixtures
28. Automobiles and Trucks
29. Prepaid Items:
    a. Insurance
    b. Advertising
    c. Dues and Premiums
    d. Maintenance Supplies
    e. Salaries
    f. Stationery and Printing
    g. Postage and Express
    h. Revenue Stamps
    i. Miscellaneous.

Similar numbering and classification may be continued for any number of accounts that you may require in your respective activity.

Liability Accounts

LIABILITIES: (These accounts should be indexed from number 100 to number 199.)

100. Notes Payable
     Banks
     Trade
     Others
101. Accounts Payable
     Regular
     Insurance
     Maintenance
     Projects
102. Clients' Funds
     Can be divided, if necessary, into
     Institution Accounts
     Individual Accounts
103. Deposits Received on Sales
     Institution Accounts
     Individual Accounts
104. Mortgages Payable
     a. First Mortgages
     b. Second Mortgages
     c. Participations
105. Taxes and Assessments Payable
106. Reserves:
     Bad and Doubtful Accounts
     Sales
     Fees
     Federal Taxes
     State Taxes
107. For a Corporation *only:*
     Common Stock
     Preferred Stock
108. For an Individual or Partnership Business:
     A. Capital
     B. Capital
     C. Capital
     etc.

109. Undivided Profits
110. Surplus.

This numbering and classification may also continue until you have as many accounts properly headed as meet your requirements.

The writer recommends that you at least maintain a record of your contingent liabilities such as:

Notes Receivable—Discounted or Sold, but endorsed
Bonds
Guarantees.

Income Accounts

Your General Ledger should again be subdivided into a section to provide for:

INCOME: (Number these from 200 to 299.)
200. Management Fees
201. Appraisal Fees
202. Sales Commissions
203. Rental Commissions
  a. Institutions
  b. Individuals
204. Insurance Commissions
205. Building Income
206. Maintenance and Repair Commissions
207. Interest Income
208. Mortgage Income
209. Drawing Papers
210. Miscellaneous Income
211. Bond and Securities Income
212. Dividend Income
213. Real Estate Sales Profit
(continue if necessary).

Expense Accounts

EXPENSE: (Number from 300 to 399.)
300. Officers' Salaries
301. Proprietor's Salaries
302. Partners' Salaries
303. Office Salaries
  a. Sales
  b. Collection
  c. Supervision
  d. General Personnel
304. Commissions
305. Rent
306. Heat—Light—Janitor
307. Interest
308. Mortgage Interest
309. Telephone and Telegraph
310. Stationery and Printing
311. Postage and Express
312. Office and General Expense
313. Dues and Premiums
314. Travelling Expense
315. Recording
316. Legal Fees
317. Accountants and Audits
318. Insurance Expense
319. Photographs
320. Advertising:
  a. Newspapers
  b. Letters
  c. Magazines
  d. Pamphlets
  e. Signs and Billboards
  f. Radio
  g. Charitable Purposes
321. Plans—Surveys
322. Appraisal Expenses
323. Taxes:
  Local
  State
  Federal
324. Depreciation Accounts
  a. Furniture and Fixtures
  b. Automobile and Trucks
  c. Buildings
  d. Other items
325. Real Estate Sales Losses
326. Bad Debts.

Again, as many numbers and classifications can be used for Expense as will properly fit in with your business.

From these accounts and books you, as the operator of your business, can prepare any type of statement which may be required on short notice for banks, your creditors, or your investors. These accounts and books will enable you also to keep in a more current and liquid position. In addition, they will not allow padding of expense to accumulate without notice; and, in general, they lead to proper accounting management.

Client Requirements

To this point we have only cared for the management office requirements. But what about our clients? What are they interested in? Briefly, they are concerned with: gross income, and its sources from the physical property managed; expense, its proper classification and its being maintained by you at the irreducible minimum of cost through proper supervision and proper methods of management; net income; prompt remittance of funds due them and simple but detailed reports; and the prop-

erty itself, its care and your constant service in prolonging its productive life.

Therefore, we must render monthly statements promptly at the close as of a designated date. The client should have the right and privilege of fixing the date to meet his convenience; the convenience of the managing agent should be a secondary consideration.

Space limitations will not permit the writer at this time to set up what in his opinion are adequate forms, rulings, and systems of accounts.

Headings and desirable names of accounts will be set forth in the following. You may choose, to your own liking, to adopt these on statement form, machine systems, cards, or otherwise:

Monthly Report

AGENT'S MONTHLY REPORT or REMITTANCE FORM should contain a section showing:

Period report covers, its date of submission to client;

Receipts—a column designating space tenant occupies, room number or apartment number, store or dwelling;

Name of tenant, previous arrears or unpaid items, current monthly rent (date from—date to), amount collected, amount delinquent at date of report, total receipts;

Disbursements—A section providing for all payments made, these named in a proper fashion so client can allocate them either to expense or capital expenditures as he, from a good business viewpoint, may determine to his best interest. A list of desirable names follows:

Janitor Wages
Superintendent Salaries
Elevator operators' Salaries
Handy-men Wages
Carpenter Expenditures
Plumbing
Heating Repairs
Heating Expense
  Coal
  Oil
  Wood
Electricity
Gas
Water
Sewer Service Charge
Decorating
Interior Painting
Exterior Painting
Elevator Service
Elevator Repairs
Floors
Carpets
Cleaning Supplies
Interest on Mortgages
Interest on Other Indebtedness
Insurance
Taxes
Papering
Commissions
Management Fees
Depreciation Reserves
Amortization of Mortgage Principal
Gas Ranges
And many other applicable classifications;

A space for total disbursements;

A space for net proceeds or amount of check remitted with report;

A space for an official or managing agent to certify its accuracy;

All receipted invoices attached.

Additional information might reasonably accompany same to show:

Percentage of total collections to rent roll or budget and to expenses.

Comparative periodic statements to show increase and progress of management, or the reverse.

Rental Roll

It is necessary to keep some system of Rental Roll due date. We find cards most convenient. A white card is used for the office record, and filed according to property location. A salmon-colored card is used for collectors, and filed according to building, districts, or

due dates. These cards should provide space for:

Name of Tenant
Address
Space Occupied
Rental
Due Date
Date Paid
Period Payment Covers.

In event many tenants pay in more than one monthly instalment, it would be advisable to provide space for recording such payments.

Card files should be provided to record and report lease expiration dates and dates when notices of termination become effective.

Schedules of delinquent accounts should be prepared at ten-day intervals, so two-thirds of the month can be used to pursue collections. The schedule should show space occupied by tenant, due date, total amount delinquent—amount less than thirty days, amount less than sixty days, and amount ninety days and over. If your form will permit, it might be advisable to show date and amount of last payment under "Remarks."

Cards, when completed so that they may be used for collection purposes, should for future reference be filed as to "Good Accounts," "Troublesome Accounts," and "Poor Risks."

Repairs and Maintenance

Under Management, a very desirable record is a card or book record which sets forth repairs and maintenance of definite rented space. A 5x8 card serves better than a book. For recording the items occurring most frequently, columns may be arranged. The information listed should be:

Date
Type of Work
Contractor
Price

Some of the headings might be:

Papering
Painting and Decorating
Plumbing and Heating
Floors
Ranges
Miscellaneous

This card serves many purposes and can be referred to readily. It will show the total expense of keeping the apartment or the space, and how often the items reoccur.

Vacancy and Consumption Reports

Another important report and an aid to keeping a management organization alert is the Vacancy Report. This should provide for "Actual Space Available" and "Space Which Will Be Available" because of notices. This report may also have a space provided for recording "Rentals Completed" or space for "Deposits Accepted Pending Completion" of space to be rented. This will then inform the leasing men of the actual available space or apartments.

Consumption Reports are required by good managers and are usually used to record tons of coal burned, gallons of oil burned, costs and dates of usage, and outside temperature. It can be a year-by-year comparison or season-by-season.

Where management organizations carry large supplies of items which are continuously used in the operation of buildings or apartments, Inventory Cards are required. Simple cards showing inventory on hand at a beginning period, additions through purchase or transfer, and deliveries and use deducted will give the actual balance on hand. This balance should be checked regularly with the actual merchandise on hand.

Summary

Let us then summarize what is important so far as bookkeeping records and statements are concerned.

Every person, whether a professional man or business man, should readily be able to determine and arrive at:

1. A balance sheet of assets and liabilities as of any date requested.
2. The net worth of the business.
3. The income, expense, and net profit for a definite period of time, or periods of time, and various comparisons of them.
4. A comparison, by analysis, of why income, expense, and net profits have either increased or decreased.
5. Vacancy and its causes.
6. Rental rolls, their collection and delinquency and the causes of vacancy.
7. Inventories, their actual place in storeroom, and their present-day value.
8. Production records of a building and comparative operating costs, present—future—and past.

Decreasing regularly for an owner the capital investment, providing during management a reasonable income return on investment, and prolonging the productive life of the physical property; this is the duty and obligation of the Management. Good records and reports and proper systems of accounting serve, in many ways, to accomplish this end.

Here is an article that ties everything together that has been said elsewhere in this Special Educational Issue.

Executive Control of Real Property

By *Carlton Schultz, C.P.M., M.A.I.*

MANAGEMENT, generally, is the direction, guidance, or control over people, or things, or both.

The term "management" is very common in business and would be understood much better in connection with real estate if people would realize that the handling of real estate, particularly income properties such as apartments, stores, and office buildings, is a business. As long as people have the idea that buildings run themselves and that someone needs only to collect rents and keep a record of them on the books, the true functions of real estate management are not appreciated.

Picture, however, an apartment building as a business. Instead of consisting of a group of families making monthly rental contributions, this business is made up of two general divisions of management activity: first, building operation; and second, tenant relations. An apartment building or any other building is not the indestructible unit which it appears to be but is really a very complex combination of steel, stone, brick, cement, pipes, wires, glass, and many other materials and equipment. Each item has its own rate of depreciation and all need servicing more or less continuously.

A Better Conception

A better conception of management, as it applies to the structure, is had when you picture the various tradesmen such as plumbers, steam fitters, electricians, painters, paper hangers, carpenters, glaziers, and others who must be employed to keep the building continually in good physical condition. In addition to the employment of the persons just named, there are utilities which must either be produced on the premises or which must be brought to the tenant from different sources. The principal utilities are light, heat, and water. The management must see to it that these utilities and items of maintenance are furnished to the building and to the tenant in the most effective and economical manner.

Another phase of management as applied to the structure is the continuous planning for its future. No building can run itself and no tenant can take care of his own requirements. The direction of the building's future does not come about automatically. It is only by constant survey and analysis and foresighted planning that the building can be kept at its peak production through renovation, remodeling, and changing of policies.

As applied to the tenant, management must procure the tenant, see that he is of the proper type, and make those arrangements for his occupancy of the premises which will be most ad-

vantageous both to him and to the building. Then, also, management must see to it that the tenant lives up to his obligations to the building and that the building lives up to its obligations to the tenant.

This, then, comprises the management of real estate:

1. All items concerning the physical care of the property
2. All matters concerning the tenancy of the occupants
3. All matters concerning the planning of the present services and the anticipation of future requirements.

The net earnings produced by any building are in direct proportion to the ability of the management.

Functions of Management

The functions of building management may be divided into:

I. Administrative

II. Executive.

The principal distinction between administrative and executive work is that the administrative functions are those of planning, whereas the executive functions are performed in actually carrying out the plan. In management, one set of functions is fully as important as the other set, for, unless the planning is sound and mature, it cannot be helpful when put into operation through the executive functions of the management.

I. ADMINISTRATIVE FUNCTIONS

In the management of real estate, the first administrative problem is to lay out a definite program for each property for the executive functions of the management to carry out.

With this in mind, it can be seen that the administrative functions should be concentrated on a master plan to obtain the greatest possible net income throughout the remaining useful life of the property. If such income is to be reached, the administrative plan must look forward not only to preserving the capital invested, but to securing the greatest possible net income return, thus enhancing the value of the property to the maximum. Automatically then, the reputation of the property will be increased, and the resultant prestige will attract future tenants of the most desirable type.

The planning for the tenant must look forward to giving him the greatest of safety and security in his tenancy, and must provide all of the comfort and convenience to which he is entitled in return for the rent he pays. It must give him the greatest of freedom from annoyances by other tenants, from mechanical devices in the building, and from intruders, not only from the itinerant peddlers, but from strong-arm men who would break in and commit depredations under cover of darkness.

The property must be maintained in such a manner that each tenant in an apartment or office building will be proud to have his friends come and see his quarters and so that when they make comparisons a desire for similar quarters will be generated in them.

Before taking over the management of a building, a property manager should use great care to work out a contract which not only sets forth the rights and duties of the owner and the manager, but also protects each of them in the arrangement. A sample of a short form of management contract which we have found very satisfactory

EXECUTED
IN DUPLICATE

CARLTON SCHULTZ
MANAGEMENT, INC.
B. F. Keith Building
Cleveland

Management Agreement

In consideration of the covenants herein contained,.....
.....(hereinafter called "Owner") and CARLTON SCHULTZ MANAGEMENT, INC. (hereinafter called "Agent") agree as follows:

1. The Owner hereby employs the Agent exclusively to rent and manage the property known as

upon the terms hereinafter set forth, for the period of.....years beginning on the.....day of....., 19....., and ending on the.....day of....., 19....., and thereafter for yearly periods from time to time, unless on or before sixty days prior to the date last above mentioned or on or before thirty days prior to the expiration of any such renewal period, either party hereto shall notify the other in writing of an intention to terminate this agreement, in which case this agreement may be thereby terminated on said last mentioned date.

2. The Agent agrees:

(A.) To accept and does hereby accept the management of the said premises for the period and upon the terms herein provided, and agrees to furnish the services of its organization for the renting, operating, and managing of said premises.

(B.) To render monthly statements of receipts, expenses, and charges and to remit receipts less disbursements. In case the disbursements shall be in excess of the rents collected by the Agent, the Owner agrees to pay such excess promptly upon demand.

3. The Owner hereby gives to the Agent the following authority and powers, and agrees to assume the expense incurred in connection therewith:

(A). To advertise said premises or any part thereof, to display signs thereon, and to rent the same; to sign, renew, or cancel leases for premises or any part thereof; to institute and prosecute actions to oust tenants and to recover possession of premises; to sue for and recover rent; and, when expedient, to settle, compromise, and release such actions or suits.

(B.) To hire, discharge, and pay all engineers, janitors, and other employees; to make or cause to be made repairs and alterations and to do decorating on the premises; to purchase supplies and to pay all bills.

(C.) To provide, equip, and maintain suitable office in the building, if deemed advisable by agent.

(D.) To collect rents and other charges due or to become due and give receipts therefore; said moneys shall be deposited in a bank specified in writing by the Owner, or if the Owner does not specify a bank, said rents will be deposited in any bank chosen by the Agent, in an account separate from the funds belonging to the Agent. The Agent will not be held responsible for the loss of money through the failure of any bank in which funds of the Owner are deposited.

4. The Owner further agrees:

(A.) To save the Agent harmless from all damage suits in connection with the management of the property and from liability for injuries suffered by any employee or other person whomsoever, and to carry, at his own expense, public liability, elevator liability, and steam boiler insurance adequate to protect the interests of the parties hereto, which policies shall be so written as to protect the Agent in the same manner and to the same extent as the Owner.

(B.) To pay the Agent each month:

(a.) **FOR MANAGEMENT:** ..... per cent of the gross amount of money received from the operation of said premises during the period herein provided for.

(b.) **FOR LEASING:** The regular Cleveland Real Estate Board leasing rates for all new tenants secured, and one-half of such rates for renewals of leases during the period herein provided for.

(c.) A supervision charge equal to five percent of the cost of all alterations.

This agreement shall be binding upon the heirs, administrators, executors, successors, and assigns of the Owner and the successors and assigns of the Agent.

IN WITNESS WHEREOF the parties hereto have affixed or caused to be affixed their respective signatures this.....day of....., 19.....

WITNESSES:

.....

.....

.....

CARLTON SCHULTZ MANAGEMENT, INC.

By.....

appears on page 402. As this is self-explanatory, no further comment will be made here.

Master Plan

The master plan should be formulated when the building is first taken over for management. One of the most capable members of the management organization should carefully examine every part of the building using as a guide a printed or typewritten check sheet. Each part of the building should be checked against the check sheet and careful notes should be made wherever any part of the building is found to be substandard. A sample check list covering major physical items appears on page 404.* The purpose of the check sheet is to bring to the inspector's attention all of the items which need examination, so that he will not overlook even the smallest item which goes to make up the building's ability to earn. The check sheet should be retained on file for future reference in order to determine what the program has accomplished.

After the check sheet has been analyzed, a careful survey should be made of the neighborhood to determine:

1. Competing rent prices
2. What space and services are included in the rent price
3. The economic strata of the inhabitants
4. The economic trend of the neighborhood
5. The facilities such as schools, stores, and transportation.

The building should then be carefully measured with the yardstick which results from the analysis of neighborhood conditions. A standard of operation, rentals, and service to tenants is then designed for the purpose of making the building the most successful net-income producer in that neighborhood. In order to do this, it may be necessary to renovate, remodel, repair, or revise rents, or to get a different class of tenants before the building can reach its maximum standards. The program which is set up for the building as a result of the study becomes therefore the master plan.

II. EXECUTIVE FUNCTIONS

The executive functions of management pick up the master plan laid out by the administrative side of the work and provide the personnel and materials necessary to carry out its provisions and to get the maximum results from it.

Real estate management therefore requires:

1. Money and materials
2. Human beings
3. Operating routine
4. Direction and leadership.

Money and Materials

Many an excellent master plan has never been used because the money and materials could not be provided to put it into effect. As soon as the master plan has been completed, a meeting should be held with the owner of the property, and he must then be sold the idea that his building is an investment. He must be shown that an added investment for the improvement of the building can be charged off within a proper length of time and bring a proper net income return. Otherwise the master plan fails.

*EDITOR'S NOTE: A detailed check list of physical items for use in determining the physical condition of an apartment building is available through The Institute of Real Estate Management, 22 West Monroe Street, Chicago, Illinois. This printed check list consists of two parts, Form 40A (Exterior) and Form 40B (Interior). A charge of ten cents is made for the Exterior report form and five cents for the Interior report form.

A CHECK LIST OF MAJOR ITEMS TO DETERMINE PHYSICAL CONDITION OF APARTMENT BUILDING

PROPERTY_____

1. Cement _____
   - A. Walks _____
   - B. Drives _____
2. Landscaping _____
3. Stores _____
4. Roof _____
5. Sheet Metal _____
6. Pointing _____
7. Painting _____
8. Screens _____
9. Awnings _____
10. Porches _____
11. Carpentry _____
12. Garages _____
13. Lobby _____
    - A. Mail Boxes _____
    - B. Phones _____
14. Stairs _____
15. Halls _____
16. Floor Covering _____
17. Heating Equipment _____
    - A. Boiler _____
    - B. Grates _____
18. Hot Water Heater _____
19. Hot Water Tank _____
20. Refrigeration Equipment _____
21. Plumbing General _____
22. Suites _____
    - A. Decorating _____
    - B. Electric Fixtures _____
    - C. Plumbing Fixtures _____
    - D. Stoves _____
    - E. Ice Boxes _____

NOTES

There is no more efficient or sure way to determine the true physical condition of an apartment building than for the manager to use such a check list as shown above.

Many a manager has never realized that, because of the increased rentals obtained, redecoration and recarpeting of hallways can usually be made to pay for themselves early in the useful life of the improvements, and that thereby a very substantial profit is returned to the investor. Most owners still look upon every outlay of money as an expense. It is management's fault if owners are not made to realize that some expenditures are really investments. When a building reaches a point where it needs improvements and the owner refuses to permit them, the owner almost invariably pays for the improvements without having them, because he usually loses more than the cost of the improvements in reduced rental collections.

Human Beings

It often seems unfortunate that management is not an exact operation and that its functions cannot be performed with the same precision that a comptometer adds, multiplies, and divides figures. Human beings are the backbone of the entire management operation, both administrative and executive, and selection of them must be made most carefully. Not only must human beings install, maintain, and improve the appearance and structure of the building, but the human beings in the management office must supervise and direct the other human beings: carpenters, plumbers, electricians, and others who maintain the structure.

The tenants also are human beings. Therefore, unless the relationship between them and the persons who maintain the physical parts of the building and the personnel in the management office who co-ordinate all activities is kept on a smooth-running basis, it is very easy for the unpredictable human elements to upset the most carefully laid master plan, and not only sidetrack its progress but actually cause substantial loss.

Operating Routine

There are many details to be handled in a management office, each one seemingly petty, but each one fitting into the entire operation as the smallest cogs fit into the largest machine. The operating routine of the office must be carefully worked out so that each person in the organization knows how every other person's work fits into his own and so that each tenant has a pretty clear idea of what will happen when he contacts the office for the purpose of setting some one or more operations into motion. By operating routine, we mean systems: systems of ordering supplies, checking them in, and paying the bills; systems of controlling the work of the employees in the property; and systems for keeping the property properly decorated, in repair, and the like.

Direction and Leadership

No football team can win a game without a captain who is at all times watching the work of the teams and foreseeing the next move. An army likewise functions poorly if it does not have a general at the top of the pyramid to take full responsibility for the planning and activity. A management organization, no matter how large or how small, should have at its top someone who inspires confidence, not only in those working under him, but also in those who contact the office. He should keep himself constantly in touch with the latest developments in his field

of activity, so that those working for and with him can rely upon his direction and follow his suggestions with a feeling of confidence that they are progressing toward the right objectives.

Executive Activities

The major executive activities of management deal with the following:

1. Preservation of the physical property
2. Development of tenant services
3. Supplying utilities
4. Purchasing supplies and equipment
5. Rentals
6. Reports to the owner.

Preservation of the Physical Property

Some of the most important items in the preservation of the physical property are:

a. Maintenance
b. Control of depreciation
c. Control of fixed charges
d. Improvements.

Maintenance. By maintenance of the property, we mean the performance of the customary and routine functions such as painting, fixing things which are broken, cleaning, mowing the lawn, cutting of hedges, repairing the roof, replacing leaking pipes, and, in general, the doing of things to preserve the property as nearly as possible in the same condition as it was when new.

There are certain items of maintenance which arise and which management cannot originally control. The grass grows of its own accord, the hedges become unruly, dust accumulates on the floors, the windows become streaked, pipes corrode, and electrical fuses give way. These problems, of course, are caused by inherent qualities and are no fault of either tenants or management.

When any of the parts of the building cease to function as they should, a tenant is annoyed, for he ceases to get the service for which he is paying. No tenant, however, should be forced to complain about the failure of any part of the building which he has rented. It is one of the executive functions of management to be constantly on the alert and, through frequent examinations of the premises, to foresee such failures if possible and to find and correct them before a tenant is annoyed.

Unforeseen events such as fires, floods, and windstorms may destroy parts or all of the building. Some of these can be anticipated and guarded against and others can only be compensated for through insurance.

Many of those managing properties feel that insurance is something for the insurance company to worry about and not the manager. This is not true. There are types and kinds of policies to fit almost every possible casualty and rates to fit almost any condition. When a property is taken over for management, as a part of the original survey all existing insurance should be analyzed to see if it is adequate and to see if it covers the possibilities of destruction most likely to happen to the particular property. As for fire insurance, there are several types of policies such as the ordinary-valued insurance and the different varieties of co-insurance.

The manager must keep in mind the fact that a building has an insurable value. If the insurance carried is for more than this insurable value, too much money is paid out in premiums, for the damage collection under any policy is limited to the insurable value.

If the building is insured for less than its value, in event of loss, the owner will have to stand the difference between the face amount of the insurance policy and the insurable value. It must be remembered that the insurance premiums which must be paid are in proportion to the rating of the building and that an insurance survey will often show that the installation of such low-priced safety devices as fire extinguishers, waste cans, etc. can effect a very substantial saving in premiums. Then too, there are types of insurance other than fire, windstorm, etc. There is insurance against losses in rent in event of damage to the building, and now companies are even working on insuring the economic life of the building.

Control of Depreciation. The very nature of the materials in a building make it subject to depreciation known as "physical deterioration." This type of depreciation is principally taken care of through maintenance. There is, however, another type of depreciation which often takes a greater toll. This is called functional depreciation or "obsolescence."

An automobile built ten years ago and placed in a museum before a wheel is turned would be unsaleable in competition with automobiles produced today. Most buildings designed for small, narrow shops are fast becoming obsolete because the demand in so many neighborhoods is for wider stores. The old apartment house with eight-, ten-, or twelve-room suites is rapidly being discarded for apartment houses divided into suites of smaller size. The fine homes which cost from $50,000 up are a drug on today's market because people are now generally buying small, modern homes.

When one of these obsolete buildings is taken over for management, a program of rehabilitation becomes the most important function of the manager. A careful survey should be made immediately to determine the extent and kind of rehabilitation necessary. When the plan of rehabilitation has been carefully checked and financed, it should be put into effect as rapidly as is practicable. This program may mean the cutting of each eight-room suite into two four-room suites. It may mean changing some of the column spacing in a one-story store building. It may mean putting in all new store fronts. Whatever it means, the result must be such that the building is rehabilitated to the point where it makes the best appeal to its possible tenants.

Control of Fixed Charges. The fixed charges of the building—taxes, insurance, interest, fees, permits, and the like—should receive careful study by the management.

As for taxes, considering the mass appraising which must be done by the tax assessor's office, it is too much to presume that all appraisals will be correct. The appraisal of any managed property must be carefully studied to see whether it is in line with other appraisals in the same neighborhood. If it is not, an appeal should be made to the tax office and a proper adjustment obtained. "A penny saved is a penny earned."

In these days of low interest rates, it is quite important that the financing on the property be given careful study. In a number of instances, it will be found that a mortgage exists which carries a higher interest and amortization than would be necessary to pay if a new mortgage were secured in the current

market. Where this situation is found, the manager should so advise the owner, and more advantageous financing should be arranged, if possible.

There are many other charges for fees, permits, and the like which perhaps have gone unchallenged for some time. In one small loft building which we took over for management, we found the electric light bill ran about twenty dollars a month. This seemed abnormal for two or three hall lights. We checked the light bills back a year or two and found that the charge was in line with the past. The amount still appeared exorbitant. A careful check of wiring was then made, and it was found that two of the tenants had cut into the house wires. When these connections were broken, the light bill went down to about one dollar and fifty cents a month. When the electrical service of tenants is combined on a house meter, a lower rate can usually be obtained which will effect a saving not only to the tenants but to the owner of the property, because as a result he will also get the current for his building at the lowest rate.

On water meters, there are demand charges. In public steam lines, there are leakages. In one building we took over, we found that there was a continuous steam bill all summer. This was caused by a leakage which even a first class valve would not correct. This charge was eliminated in the summer time by disconnecting the line from the meter. The difference between profit and loss in a building operation is often dependent upon how many small items of expense are allowed to accumulate.

Improvements. An intensive study of a property will often show that renovating, remodeling, or modernizing the property to make it meet current conditions more successfully is not enough. The land itself may be inadequately improved. This inadequate improvement might be that the building is too small, or that it is the wrong kind of a building, or it might be that the plot is not sufficiently built up. This does not mean that the original improvement was poorly planned. It may often mean that the later development of the neighborhood has been such as to call for a larger building. In such event, capital additions can often bring handsome returns.

Development of Tenant Services

One of the best ways to keep tenants and get the maximum rents from them is through the development of the services which they desire. These services need not be expensive ones, for there are many things which can be done which are highly pleasing to the tenants, yet do not cost much money. It costs but little more to maintain attractive lawns, hedges, and flower beds around an apartment house than it does to have plain or ugly ones. Just because the hedges were planted and the flower beds laid out ten years ago is no reason why they should be left in the same condition from year to year. Some originality should be used. When the old hedges get large and out of proportion, they should be cut. The flower beds should be changed in keeping with the times. Door knobs and kick plates should be kept polished. The cost is slight and a building is often misjudged when they are dirty and tarnished. The tenants should not be frozen one hour and roasted the next. Poor heat regulation raises coal cost and makes tenant turnover much greater.

When a tenant's faucet leaks, it should be fixed. Every hour of delay increases the water cost and shortens the term of that tenant's occupancy. If the manager knows that any quarters in the building are dirty or in need of repair, he should go in and ask the tenant when the work can be done conveniently. As long as it has to be done anyway, why should the manager wait until the tenant complains before doing it. The lazy way of managing a building is, of course, for the manager to act only when goaded by tenants' scoldings and threats. This is also the costly way to manage a building, for the best tenants complain and threaten but little—they just quietly move.

All tenant services should be planned and executed for the purpose of obtaining the goodwill of the tenant and maintaining the high standing and prestige of the building. Tenants with whom the management co-operates are the ones who are most anxious to co-operate with the management. The highest net income at the end of the year may be credited to properly designed tenant services.

Supplying Utilities

All or some part of the following utilities are supplied by buildings which are rented to tenants.

a. Heat
b. Electricity
c. Water
d. Gas
e. Telephone.

Heat and Electricity

Heat may be furnished either from furnaces on the premises or may be purchased from a neighboring building or from some public utility. Whichever way it is furnished, it should not be furnished in the spirit of one manager who, on one cold fall day, said: "One of my tenants called me this morning and complained because I did not have any heat on in the building. I just told him that the law did not require me to furnish heat for two weeks more, so he would just have to get on the best he could." The value of the heat saved by this manager for the owner was probably much less than the value of the tenant goodwill which he lost. If you could see the records of that building, you would no doubt find a high tenant turnover. The manager who would take this position on the furnishing of a basic service such as heat would probably take the same penny-wise and pound-foolish position in regard to the furnishing of other services to which the tenant was entitled. Heat which is purchased from a public utility comes in an unlimited quantity, and, therefore, the control of such heat must be carefully supervised so that each tenant gets what he requires. Furthermore, supervision is necessary to make sure that the heat is not continually running through the meter without giving the greatest benefit to the users.

Electricity is paid for by the tenants in some buildings; in others, it is furnished free. Money can be made or lost in the proper control of this utility. In large buildings, the current can be purchased wholesale and metered at retail prices to the tenants, thus providing a profit to the owner. If the building is one in which the owner provides the fixtures for the use of electric current, such fixtures should be carefully supervised regardless of whether the owner or the tenant pays for the current. The average tenant considers the cost of

electric current as a part of the cost of his rent. If the current bill is abnormal for the use that is made of the electricity, the tenant is likely to criticize the cost of occupancy, and a shopping tour by the tenant may provide him with such services in another building at a cost more to his liking.

Where electricity is submetered to the tenants, the meters should be calibrated at least once every two years. Meters usually slow up. When a tenant's submeter slows up, this means that he is not paying the owner for the full amount of electricity used. For the same reason, gas meters, also, should be calibrated every few years if gas is submetered to tenants.

Water, Gas, and Telephone

The things that have been said about heat and electricity can be said for the most part about the control of water and gas. Here, too, savings should be made whenever possible, but care should be taken that tenants are not antagonized.

The telephone is a universal convenience. Therefore, the question of telephones is one which always requires study. The telephone company is now giving such a variety of telephone services that a special type is available to fit the requirements of every building where telephone service must be given. There are ordinary single telephones, telephones going through a switchboard, intercommunicating systems where the switchboard is eliminated, and systems where, if the subscriber is not in, the phone will be automatically answered by someone else. Of the public utilities, the furnishing of the right telephone service is fully as important as properly serving the tenant with any other utility.

Purchasing Supplies and Equipment

The purchasing of supplies is often left to a minor clerk whereas this item of building operation is an important executive function. In office buildings, the same type of paint is used continuously, the same type of cleaning compounds, oils, etc. In every building office or otherwise, there are certain types of supplies which are used over and over, year after year. These should never be purchased on a price basis. Before any brand is selected, careful tests should be made of it in comparison with competitive brands and then that brand should be selected which will give the best results per dollar of cost. After a brand has become standard, it should be retested at least once each year. This should be done because brand quality changes from time to time. This is particularly true with paints.

All purchasing should be done from a central point. By this method, the best prices are obtained and the one making the purchases has the greatest control over cost. Instead of several people each buying small quantities of a material, one person buys a large quantity of the material and distributes the purchase to the several buildings where portions of it are to be used.

The management, though, should never make a profit from supplies purchased or from work done for an owner, unless it is with the owner's full written sanction. If any question arises about the use of a material or its cost, the manager should always be able to stand firmly with the owner against the manufacturer or salesman. The manager's only compensation should be that fee which his contract requires that the owner pay to him.

Rentals

Before any endeavor is made to secure tenants, reference should be made to the original survey of the property and neighborhood if the survey has been made recently. If it was not made recently, a completely new survey should be made to learn exactly what the competition is, and then this information should be adjusted to the space which the building has to offer.

As a part of the survey, the manager should already have learned what the social characteristics of the tenants are and also their economic status. The social characteristics of tenants in an office building may seem unimportant, but you cannot mix quacks and legitimate doctors, ambulance chasers and first class lawyers, and business men and bootleggers, even in an office building. In an apartment house, the necessity for the selection of tenants from the same general social strata is even more important.

When the social characteristics of tenants have been determined, their social strata, their economic status, and the competitive conditions must all be adjusted into a rental covering each of the separate spaces in the property which you are managing. If a rental is out of proportion to what the tenant is going to get in a particular location, you are beaten before you start.

Some managers say that as soon as you seek tenants, you cheapen the property. This is a fallacy. The largest life insurance companies are the ones which are most aggressive in selling their policies, but at the same time, they are most particular in their medical examination and credit investigation of an applicant for a new policy. The more active a manager is in doing all things which are respectable and ethical to secure tenants, the more prospective tenants he will have from which to select just the ones that he wants, and the more chance he will have to get the rentals which he feels are proper.

It should always be remembered in the selection of tenants that future collections are assured when the right tenant is put into the property. If tenants are put in who are unable to pay, there will always be trouble in collecting.

The prestige of a building depends upon the quality of its tenants. We all know that gamblers, bootleggers, and other undesirables will pay higher rentals to go into a good building than will quiet, respectable people. However, ability to pay rent is not the sole qualification for admission into any building. Each tenant should be carefully investigated before he is permitted to enter into an occupancy agreement. This investigation can either be made by looking up his references or by getting a credit and character report on the tenant through one of the regular reporting agencies. Securing a character and credit report is much the better way, because there is no one so disreputable that he cannot find two or three people who will speak well of him.

Whether leases should be given, or month-to-month tenancy insisted upon, depends considerably upon the economic conditions which affect the particular building at the time that the tenancy is arranged. At a time like 1941, when it looks as though we were approaching inflation and higher rents, leases of course are usually undesirable, for, in order that a tenant's rent may be adjusted to current conditions, it is

better to leave him in on a month-to-month basis.

Collection Policies

A great variety of collection policies are used by management offices. Some send out monthly statements and some send out only the original statement at the time the tenant takes possession of the space. Some offices have the monthly rent brought in or mailed to the office by the tenant. Some have the janitor collect, and some employ collectors to go around and pick up the rent from the offices or apartments. Each one of these ways may be satisfactory under certain conditions. In the average apartment, however, I believe that all rents should be either brought into the office by the tenant or by a collector. The same is generally true in office buildings because janitors usually have such a low economic standing that they should not be tempted to become dishonest by having in their hands the authority to collect money.

Inasmuch as a large part of the activities in the average management office is looking after tenants who pay small rents — under sixty dollars a month — I do not believe that the tenants should be expected to keep track of their obligations. Therefore, it seems that it is well to jog their memory each month by sending them a bill. If the up-to-date system of machine bookkeeping is used in keeping accounts, the office cost of monthly billing amounts to little more than the cost of the envelope and postage.

Since everything should be done to make funds safe and to relieve employees of any temptation which might be occasioned by their having control of money, all employees should be bonded with a Surety Bond. This is especially true where the managing company has only a small invested capital and could not repay the owner for a default which amounted to any appreciable sum.

All funds collected should be put into special accounts, and these should be segregated from the funds of the managing company. When the property is large, it is well to have a special bank account for it. This practice saved building managers thousands of dollars when the banks closed in 1933, because wherever they could show that the funds were not mingled with their own, the managing firm was not held liable for the money lost in the closing of the banks. If the money was mingled with the firm's money and lost through the banks closing, the firm was liable for its repayment to the owner. It is also important that money should not be mixed with the funds of the managing company because suits can be brought and many things might consequently happen which would tie up the managing company's bank accounts and thereby jeopardize the clients' funds. There is, of course, another reason which it should not be necessary to mention. That is, the temptation of the managing company to use the clients' funds is much less if they do not show up in the managing company's bank account.

At the end of each month a prompt remittance should be made to the owner of the property showing detailed collections and detailed expenditures. When this is done, the owner feels that he is at all times in close touch with the operation of his property and if there are any questions or criticisms which he wishes to bring up, he can do so before it is too late.

Reports to Owners

It is important that the manager keep the owner advised in detail as to what he is endeavoring to do and what he has done. When the building is first taken over, and at the beginning of each year, the manager should give the owner in advance a budget for the year ahead together with recommendations as to those things which should be done for the property. At the end of every month, he should send the owner an operating statement and remittance. Included with this statement should be complete information as to anything which has happened outside of routine management. Each time a prospective tenant is secured, a credit report together with complete information on the cost of preparing the space for that tenant should be sent to the owner and his approval secured before final arrangements are made with the tenant. This should be done even though the management contract gives the manager full authority in these matters, because practically every owner wishes to know in detail what is happening. Whenever any alterations, or improvements, or the expenditure of money is considered advisable, the owner's consent should be obtained. Whenever there are any unusual expenditures, a most carefully written report should be made in advance to the owner so that he will not be surprised when the bills come in.

At the end of the year, a progress report should be made up showing what has been accomplished during the twelve month period. This is one of the best opportunities to keep the owner sold on management, for if he is shown by this report to what extent the building has advanced during the year, he will feel that the management fee that he is paying is a good investment.

Operating Costs

Lack of knowledge of operating costs has kept many an owner operating his own property years after he should have turned its management over to a managing organization. The owner of any one building seldom has operating costs of other buildings available, and invariably he thinks that his operating costs are what they should be, when as a matter of fact they may be considerably out of line. The great advantage the management organization has is that, in the operation of many buildings, it can break down respective operating costs and set up averages against which it can compare the different buildings under its management. It is only by comparison that building costs may be kept in line. The expenditures in different years usually vary for the same items because of the fluctuation in market prices.

When the management knows what the average operating expenses should be for any building which is under consideration, it should then budget in advance the expenses for the coming year and make monthly comparisons with the actual monthly disbursements. If the expenses in any one month run over the budget, this is an indication that something may be wrong and a careful study of the operations should immediately be made to learn the cause of the runover. Often conditions warrant exceeding the budget, but when an overexpenditure occurs in any one month, the management must, of course, be extra careful in the following months so as to cut the average ex-

penses down to what they should be for the entire year.

Operating Statement

At the end of each year, an operating statement carefully broken down into its subdivisions of cost should be prepared. This should then be compared with the budget for the building. This sort of a study will very often produce information which will make it possible to cut the budget and operating expenses for the following year.

Just because a management organization operates a number of buildings does not mean that it knows operating costs. The manager should not rely on his own judgment in these matters, but should continually compare and study the costs in the different buildings. It is only by a continuous study of the comparison of operating costs in different buildings that proper standards can be set up for any one building.

Obligations of Management

The manager of real estate is appointed by the owner in a trust capacity because the owner believes that this particular manager can make his property produce the greatest possible net income.

The production of the highest attainable income includes the doing of many things, both in an administrative and executive capacity. In his administrative capacity, the manager must lay out a master plan for the operation of the property, and in his executive capacity must put this plan into operation. In putting the plan into operation, the manager must do many things. Some of the most important of these have been briefly described. All of these things must be done in an evenly balanced manner with the principal objective in mind—to make the building produce the greatest possible net income for the longest period of time.

The manager has an obligation to his tenants to keep them happy and to give them continually the service for which they pay. He has an obligation to the property to keep it modern, up to date, and in repair, and an obligation to the community to maintain the property in such a manner that it will be an example to other owners and a model of how they should keep up their buildings.

One Hundred Questions

• *The 100 questions which follow are designed to test your knowledge of the "Fundamental Principles of Real Estate Management." They will reveal wherein you are strong. They will let you know wherein you are weak. When you get stopped, however, you need not go far to find the answer or answers. You will discover most of them in the related articles appearing elsewhere in this issue.*

I. Objectives of Management

(See pages 303 to 308.)

1. What are the five constituent parts of a real estate income property?
2. What are the four primary interests of the owner?
3. What are the four primary interests of the tenant?
4. Distinguish between the administrative and executive problems of the property manager.
5. Show how the property manager's administrative policies are related to the primary interests of the owner and the tenant.
6. What are the two basic executive problems of the property manager?
7. What are the essential steps that should be taken in developing maximum gross income?
8. List the factors that must be controlled by the property manager in the maintenance of maximum net income.
9. Explain the relationship of neighborhood forces to the value of an income property.
10. Compare the basic functions of the manager of an apartment building property with the basic functions of the manager of a retail merchant enterprise.

II. Neighborhood and Market Analysis

(See pages 309 to 331.)

1. List and comment upon several economic forces within neighborhoods that influence the rentability of income real property.
2. List and comment upon several social factors within neighborhoods that influence the rentability of income real property.
3. List and comment upon several civic factors within neighborhoods that influence the rentability of income real property.
4. What is a real estate market? Explain the statements "Several different real estate markets may exist at the same time in the same neighborhood. Some of these markets may be active at the same time that others of them are inactive."
5. List and comment briefly upon at least five conditions that cause a real estate market to be active.
6. List and comment upon at least five conditions that cause a real estate market to be inactive.
7. List and comment upon at least five conditions that are created by an active real estate market.
8. List and comment upon at least five conditions that are created by an inactive real estate market.
9. Show that neighborhood and market analyses are essential steps in the planning of a management program.
10. Suggest a practical procedure that a property manager might follow in analyzing neighborhoods and real estate markets.

III. Property and Ownership Analysis

(See pages 332 to 340.)

1. Explain "highest and best use" and show its significance to the property manager.
2. What is meant by "highest and best use as is"?
3. Show the relationship between the physical *character* of the property and and the property manager's problem of securing tenants.
4. Show the relationship between the physical *condition* of the property and the property manager's plan for maintenance.
5. Suggest a practical procedure for a property manager to follow in analyzing an income property preparatory to the development of a program for managing it.
6. When and how often should the property be inspected by the property manager?
7. Discuss the relationship between periodic inspections and net income.
8. What is meant by "ownership analysis"? Why is such analysis important to the property manager?
9. Suggest a practical procedure that might be followed by a property manager in analyzing the ownership of a property, the management of which he has under contemplation.

10. Discuss the relationship between ownership analysis and the four primary interests of the tenant.

IV. Budgets and Rent Schedules

(See pages 341 to 352.)

1. What is a budget and what is its purpose?
2. What should be included in a budget for an unfurnished apartment property?
3. Suggest a practical procedure that might be followed in building a budget for an income real property.
4. Show the relationship of the budget to the management program.
5. What is a rent schedule and what is its purpose?
6. Explain briefly the relation of the rent schedule to the owner's and the tenant's primary interests.
7. What is the place of the rent schedule in the management program?
8. Explain the "base-unit" theory of developing rent schedules for apartment properties.
9. Explain briefly the Sheridan-Karkow formula for establishing rent schedules for office buildings.
10. Suggest a practical procedure for keeping a rent schedule in line with the market.

V. Maintenance, Repairs and Decorating

(See pages 353 to 362.)

1. Distinguish between "maintenance," "repairs," "replacements," and "additions to capital."
2. Show that proper management involves advance plans for the control of maintenance and repairs.
3. How are maintenance and repairs related to the owner's and the tenant's primary interests?
4. What should a program for maintenance include?
5. Suggest a practical plan for a property manager to follow in handling the problems of repairs.
6. What are the purposes of decorating?
7. How is decorating related to the management program?
8. Suggest a practical procedure that a property manager can follow in establishing basic policies for the control of the decorating problem.
9. List and explain briefly at least five ways in which the property manager can effect economies in handling decorating activities.
10. Suggest a practical plan for the use of color in decorating unfurnished apartments.

VI. Heating and Plumbing

(See pages 363 to 376.)

1. What are the basic phases of heating?
2. List and explain briefly the methods that the property manager can use in testing the efficiency of fuel combustion.
3. List and explain briefly the methods that the property manager can use in testing the efficiency of absorption in his heating plant.
4. List and explain briefly the methods that the property manager can use in testing the efficiency of heat distribution in a building.
5. Suggest a practical procedure for scientific purchase of fuel.
6. What does a plumbing system include and what is its function?
7. Outline a practical plan for inspecting and repairing a plumbing system.
8. Suggest a practical plan for handling the problem of obsolescence of plumbing fixtures.
9. Show the relation of the plumbing and heating problems to tenant occupancy.
10. Show the relationship of plumbing and heating to net income.

VII. Purchasing

(See pages 377 to 384.)

1. List items of equipment, supplies, services, and material which the property manager may be called upon to purchase.
2. Outline briefly the scope of the knowledge that a property manager should have in order to function efficiently in purchasing.
3. What is meant by "specifications" in relation to purchasing?
4. Suggest a practical procedure for a property manager to follow in developing specifications.
5. List at least five different ways in which the property manager can effect savings in purchasing.
6. Show the relation of purchasing to net income and property value.
7. Show the relation of purchasing to the property budget.
8. Show why the purchase of services should conform to the same basic principles of policy and procedure as the purchase of equipment and other material.
9. How can the problem of purchasing be handled by a property manager whose volume of business is too small to support a full time purchasing agent?
10. Suggest a simple system of records for use in supervising and controlling purchasing activities.

VIII. Credits and Collections

(See pages 385 to 393.)

1. In what sense may a lease be considered a "credit instrument"?
2. In what ways, if any, is the problem of credit influenced by the type of property offered for rent?

3. What should the property manager know about the tenant's character and habits before extending credit? How can he get this information?
4. What should the property manager know about the tenant's job and income before extending credit? How can he get this information?
5. Show the place and importance of credits in the management program.
6. Suggest a practical plan for administering and supervising the credit problem in the management of a large furnished apartment property.
7. Show the relation between credits, collections, and tenant turnover.
8. List and explain briefly at least three methods of handling collections.
9. Why should the collection policy be flexible?
10. Suggest a simple record system for use in supervising collections.

IX. Accounting

(See pages 394 to 399.)

1. What is accounting? How does it differ from bookkeeping?
2. What are the purposes of accounting?
3. How should items of income be classified?
4. How should items of expenditures be classified?
5. From the standpoints of economy and efficiency in operation, offer at least five practical suggestions for use in developing and establishing a system of accounts.
6. Show the relation of accounting to the management program.
7. Why should clients' funds be segregated in bank accounts separate from funds belonging to the property manager?
8. Suggest detailed specifications for use as a guide in hiring bookkeepers and accountants.
9. Which employees of a management organization should have a working knowledge of accounting? Why?
10. List four important Statements of Accounting in Real Estate Management. Explain each one briefly.

X. Executive Control of Real Property

(See pages 400 to 414.)

1. It has been said that a property manager is primarily an administrator and an executive rather than a technical expert. What does this mean?
2. Show that an income property cannot be successful without executive control.
3. Show that there can be no effective executive control in the absence of advance planning.
4. Show that the plan for management cannot produce desired results without continual supervision.
5. Discuss the place of personnel in effective executive control of real property.
6. What are the essential qualifications of an executive?
7. Show that ability to think creatively and clearly is an essential executive function in the management of income real estate.
8. How much can an owner afford to pay for maximum efficiency in the management of his property.
9. Show that one test of executive capacity is the ability of the manager to secure adequate compensation for his services.
10. Discuss the future outlook for the vocation of real estate management.

MAINTENANCE EXCHANGE

Richard Lawrence Nelson, C.P.M.
EDITOR

Letters of Inquiry, Comments by Readers, Notes by the Editor

Casein Paint, No. 3

Recently we have published letters about casein paint, from two Certified Property Managers, outlining successful experiments which they have undertaken. Their experience indicates the practicability of this product in certain special situations; that is, for use on Craftex walls and for use in low-rent buildings. The letter which follows is from the Technical Director of the Chicago Housing Authority. This agency has experimented extensively with casein and the letter summarizes its experience. We would appreciate further correspondence from readers who have conducted similar experiments.

Dear Mr. Nelson:

I have been reading with interest the comments of your readers on their experiences with casein paint. The Chicago Housing Authority has had quite a bit of experience in the use of both oil and casein paint which experience I am very happy to pass on to your readers.

About a year and a half ago, we were faced with a major redecoration of all the apartments in our low-rent housing projects. In order to determine the most economical and best material to use, we conducted painting tests. We painted test panels on the walls of one of the rooms in the Administration Building of Jane Addams and also Julia Lathrop Homes. Some of these panels were casein and some were oil paints. After the panels had dried thoroughly, they were dirtied up by smearing on soot, dirt, crayon, pencil, and grease. The panels then were washed with soap and water to determine the washability of the products. There were about six different kinds of casein paints that were tested. Only one of these was really outstanding as far as washability was concerned. The rest of the caseins washed badly. Either they washed off down to the bare wall or else it was impossible to remove the dirt from the surface. Because casein is a porous material, it absorbs dirt and grease, and therefore it is difficult to remove. In the case of the oil paints, the dirt washed off of all of them very well—in some cases better than others. Owing to the difference in cost between the oil paints and the particular casein paint which proved to be fairly successful in the washing tests, the Housing Authority decided to do at least a portion of their redecoration with casein paint, and to paint the remainder with oil paint.

Under actual living conditions, the casein paint has not stood up as well as it should have and as was indicative of the tests that were run. The porosity of the material causes it to dirty much faster than a gloss oil paint and this makes it impossible to wash out any

greasy fingerprints which are prevalent in apartment buildings in which there are families with children.

In some instances where there are as many as three or four coats of casein on the wall, popping and scaling has occurred. Once this action begins, it is impossible to stop it. Putting more casein over such a condition only results in more popping off, because the new casein in drying tends to pull off the old.

Another difficulty in using casein is that once you use it on a wall, the die is cast; in making a change over to an oil paint, difficulty is experienced in getting a decent paint job. To get a successful oil-paint job on a caseined wall, one must use a penetrating primer and sealer which will soak through the casein and bind it to the wall. Unless the casein is bonded properly to the plaster, painting with oil paint over the casein will only result in the popping off of the casein, and, of course, the paint comes with it.

Another difficulty experienced in repainting with oil over casein is "flashing"—that is, there are high and low spots in the finished job.

After the experience we have had with casein, I can only recommend that it be used in temporary structures or in out-of-the-way places where it will not be used too harshly. As a material to redecorate apartments, I would never recommend using it, because, in the long run, what one saves in first cost because of the inexpensiveness of the material, he will spend later on trying to remedy the difficulties that result from the use of casein.

DONALD G. BRAUN
Technical Director

Casein-Paint Remover

MR. BRAUN'S letter points out the difficulty in changing to an oil paint on a previously caseined surface. Such a change sometimes presents a considerable problem. Occasionally, too, the casein film fails because of plaster conditions such as moisture, staining, or saltpeter. In many instances, hairline cracks or fissures caused by settling or vibration spoil the appearance as do brush marks and visible laps. Sometimes the paint film fails through chipping or peeling. For these reasons, it is frequently desirable or necessary to remove casein paint. There has recently come on the market a casein-paint remover manufactured by the Tamm-Silica Company of Chicago. This remover comes in powder form and can be dissolved readily in boiling water. Its action is that of a positive solvent. When it comes in contact with casein paint, a process of disintegration of the casein glue takes place. The remover apparently acts much as does a paint and varnish remover when applied over an oil-painted or varnished surface. The manufacturer states that it is non-injurious to the hands and that it is also an effective remover of oil paints and varnishes as well as of casein.

The procedure generally recommended and employed for the application of this remover is as follows:

Allow one pound of powder to the gallon of boiling water. Apply with brush after solution is thoroughly dissolved and is still very hot. The solution can also be applied with sponge, although this method necessitates the use of rubber gloves because of the high temperature of solution. There-

fore, the brush method is more popular.

While the surface is still wet, the now softened casein paint can be easily and quickly removed with a putty knife or scraper, if there are several coats. One coat can usually be washed off without scraping. The surface should then be thoroughly rinsed with plenty of clear, lukewarm water to remove all particles of softened paint film.

If any small particles of casein still adhere to the wall, these can be spotted over with the solution, or, if they adhere to a Craftexed or pitted surface, a wire brush should certainly remove all traces of the old finish.

It is very necessary and important that all surfaces which have had the remover solution applied to them be thoroughly rinsed, and, if possible, washed with a fairly strong solution of trisodium phosphate, and rinsed once more.

After the usual preparation has been completed, the wall surfaces are ready for repainting with the desired type of wall finish.

This information has been collected from a number of large-scale users, who report it to be a thorough and economical method.

Paste Filler vs. Penetrating Seal

Dear Sir:

Recently several salesmen and floor sanders have recommended that we use a penetrating floor seal instead of a paste filler on oak floors.

Our specifications for the refinishing of oak floors require that they be filled with a paste filler and that the first coat of varnish be applied directly over the filler, thereby securing proper anchorage and forming an amalgam with the floor. We have found that paste filler fills and seals the grain of the wood and leaves a very smooth surface upon which to apply varnish, thereby extending the period of wear-resistance and further extending the day when a complete refinishing job is necessary. If the surface is rough, it stands to reason that the varnish is going to wear rapidly and unevenly.

We have found seal to work very satisfactorily on maple floors because of their close grain but question its application on an oak floor. Do you know of anyone who has tried sealer on oak floors—if so, how did it work?

G.S.B., EVANSTON, ILL.

THERE IS very little that can be added to this letter. Paste filler is much more satisfactory for oak floors because it fills the pores, and the result is a smoother surface. Paste filler results in an elastic and waterproof foundation. Most seals, on the other hand, have a water base to which are added certain waxes. Such seals penetrate the pores and leave a rough surface. They are not as good a foundation upon which to place varnish. The oil seals are much to be preferred to those with a water base and can be made to work satisfactorily except that the final floor surface is not as smooth as when a paste filler is used. Penetrating seals are ordinarily more expensive than paste fillers. Their single outstanding advantage is their quick-drying property. After a seal has been applied, a floor may be given a coat of varnish within twenty to thirty minutes later.

Removing Tar from Concrete

IT IS sometimes possible to remove tar spots from a concrete sidewalk with a paste made of dry Portland cement and benzine. The area should be covered with boards or with something else to check the evaporation of the benzine. Tar spots are a particularly persistent type of stain, and, if the tar is not dissolved by the benzine, the stains are most likely permanent.

Refrigerator Deodorizer

WE HAVE all seen a prospective tenant wrinkle her nose when she has opened the door of a disconnected refrigerator, and we know that the odor is sometimes overpowering. A correspondent who is faced with the problem of not wanting to keep his refrigerator doors open in vacant apartments, but who is still not willing to keep the refrigerator boxes running, writes that he was able to construct a cheap and effective deodorizer. He took a pint can, perforated the top and bottom, and filled it with granular activated carbon. The carbon was cemented together by its being mixed with a very small percentage of plaster of Paris which bound the carbon together in cake form. The granular activated carbon functions as an absorber of the unpleasant odors. This seems like a rather neat solution.

Repairing Galvanized Gutters

GALVANIZED iron gutters ordinarily disintegrate by first developing a large number of pin holes. In these days when iron is difficult to get and labor and material costs are high, it is frequently necessary for the building manager to make temporary repairs with his own building crew. A gutter which is rusting and contains numerous small leaks can be repaired in the following manner:

First, brush down the gutter thoroughly.

Second, coat the area with plastic roofing cement. This can be applied with a trowel or even a small stick.

Third, then set over this coating of plastic a strip of gunny sack, cheesecloth, or preferably, regular roofing fabric.

Fourth, place a final coating of plastic cement over the fabric.

Although a large hole or complete area in disrepair cannot be effectively patched in this manner, on a proper surface this method should stand up for two or three years.

More About the Roller Stippler

THERE IS today considerable interest evident among managers of property in such labor-saving devices as the roller stippler. We have received several inquiries about this tool and a number of letters from people who have had successful experience with it. Present-day labor conditions have gone a long way towards furthering acceptance of tools which a year or two ago were considered merely "gadgets." Winston Porter, manager of several large buildings operated by a large Chicago estate, writes that painters have used roller stipplers in several of the buildings that he has managed and that they have proved very satisfactory. He says that it is unfortunate that there are not more labor-saving devices as effective and generally accepted as the roller stippler in view of the present eleven dollars a day, six-hour day wage scale in Chicago. He refers to the old stipple brush as a "time killer," and emphasizes the fact that his painters are very pleased with the new tool. The "acceptance" of the roller stippler is evidently not confined to a few managers only, but extends to contractors and mechanics as well.

New Certifications

The Institute of Real Estate Management

The title of "Certified Property Manager" has been conferred upon the following individuals by The Institute of Real Estate Management.

(See pages 429 to 433, inclusive, for a complete list of Certified Property Managers.)

MURRAY CAHILL,
Birmingham, Alabama.

Born, Mobile, Alabama, June, 1906; Secretary and Treasurer, Jackson Securities & Investment Company; member, Birmingham Real Estate Board; professional territory covers Birmingham and vicinity; studied accounting at American University of Commerce; one year's experience in public accounting; seven years' experience in the real estate field; five years' experience in real estate management.

LELAND P. REEDER,
Beverly Hills, California.

Born, Logan, Kansas, October, 1891; owner, Beverly Hills Realty Company and Leland P. Reeder Company; Director, Payne Furnace & Supply Company; Charter Member, Vice President, and former President, Beverly Hills Realty Board; professional territory covers Beverly Hills, Westwood, Bel Air, Holmby Hills, Brentwood, Santa Monica, Los Angeles and vicinity; A.B. degree, Stanford University; studied law at University of Southern California; completed Lecture Course conducted by The Institute of Real Estate Management at Los Angeles, 1940; twenty-one years' experience in real estate management.

JAMES M. UDALL,
Hollywood, California.

Born, San Francisco, California, January, 1906; in business under own name; Director and Chairman, Board of Governors, Apartment House Association of Los Angeles, Inc.; member, Building Owners and Managers Association; member, Los Angeles Realty Board; professional territory covers the State of California; attended the University of California; completed Lecture Course conducted by The Institute of Real Estate Management at Los Angeles, 1940; eight years' experience in real estate management, specializing in office buildings, apartment buildings, and residential properties.

HAROLD C. FREEMAN,
Long Beach, California.

Born, Yale, Iowa, January, 1896; Vice President, General Manager, and Director, Security Realty Corporation, Ltd.; Past President, Long Beach Advertising Club; President, California Heights Improvement Association; Director, Long Beach Realty Board; professional territory covers Los Angeles County; studied commercial courses at Northwestern University; studied Commercial Law, Negotiable Instruments, Public Speaking at American Institute of Banking; completed Lecture Course conducted by The Institute of Real Estate Management at Los Angeles, 1940; twenty years' experience in the real estate field; approximately fifteen years' experience in real estate management.

WILLIAM G. DICKINSON,
Los Angeles, California.

Born, San Diego, California, June, 1895; President, George W. Dickinson & Son; firm established 1901 and Charter Member of Los Angeles Realty Board; Secretary, Rives-Strong Building, Inc.; Secretary, Bartlett Syndicate Building Corporation, Ltd.; Secretary, Rampart Boulevard Company; Secretary, Country Club Park; Secretary, Arym Investment Company; Secretary, Idyllwild Mountain Park Company; member, Los Angeles Realty Board; professional territory covers Los Angeles; A.B. degree, Stanford University, 1919; completed Lecture Course conducted by The Institute of Real Estate Management at Los Angeles, 1940; twenty years' experience in the real estate field; fifteen years' experience in real estate management.

EDWARD H. MOLTENI,
San Francisco, California.

Born, July, 1897; Secretary, Harry B. Allen, Inc.; Secretary, Allen & Company; As-

sistant Secretary, John Brickell Company; member, Building Owners and Managers Association of San Francisco; member, San Francisco Real Estate Board; professional territory covers San Francisco Bay Area; approximately three years extension course study with Pace & Pace and the University of California, Extension Division; completed Lecture Course conducted by The Institute of Real Estate Management at San Francisco, 1940; twenty years' experience in the real estate field; ten years' experience in real estate management.

ROY G. FRISTOE,
Washington, D. C.

Born, Washington, D. C., October, 1894; associated with Davidson & Davidson for twenty years; member, Washington Real Estate Board; firm Davidson & Davidson Charter Member of Board; professional territory covers the District of Columbia and metropolitan area; attended Engineering Course, McKinley Manual Training School; attended Business Course, Washington and Lee University; attended courses conducted by the Property Management Section, Washington Real Estate Board; completed Lecture Course conducted by The Institute of Real Estate Management at Washington, 1939; twenty-five years' experience in real estate management.

JOHN F. CLEGG,
Atlanta, Georgia.

Born, Columbus, Georgia, October, 1890; associated with Briarcliff Incorporated; member, Atlanta Real Estate Board; professional territory covers Atlanta and environs; LL.B. degree, Atlanta Law School; thirty years' experience in the real estate field; ten years' experience in real estate management.

ARTHUR L. ANDERSON,
Chicago, Illinois.

Born, Chicago, Illinois, June, 1904; associated with C. Wallace Johnson, Inc., and G. A. Johnson & Son, Contractors; associate member, Chicago Real Estate Board; professional territory covers Chicago and suburbs; studied Architecture and Engineering at Armour Institute of Technology; completed Case-Study Course, Real Estate Appraisal I, conducted by the American Institute of Real Estate Appraisers at the University of Chicago, 1938; completed Case-Study Course conducted by The Institute of Real Estate Management at the University of Chicago, 1940; nine years' experience in the real estate field; nine years' experience in real estate management.

JOHN F. CARY,
Chicago, Illinois.

Born, Chicago, Illinois, September, 1907; Manager, Rental Department, Advertising and Cost Analyses, C. Wallace Johnson, Inc.; associate member, Chicago Real Estate Board; professional territory covers Chicago and suburbs; studied Real Estate Law, American Institute of Banking; completed Case-Study Course conducted by The Institute of Real Estate Management at the University of Chicago, 1940; twelve years' experience in the real estate field; six years' experience in real estate management.

GEORGE H. STANTON,
Montclair, New Jersey.

Born, Elmira, New York, July, 1896; in real estate business for self since 1922; Director, Watching Title and Mortgage Guaranty Co.; Director, and Past President, The Montclair Real Estate Board; professional territory covers Montclair, Glen Ridge, Bloomfield, Verona, Cedar Grove, Essex Falls, and The Caldwells; B.S. degree, Cornell University, 1920; nineteen years' experience in the real estate field; seven years' experience in real estate management.

FRANK S. O'HARA,
Jackson Heights, New York.

Born, Long Island City, New York, July, 1889; President, Frank O'Hara Inc.; Director, Fidelity National Bank; Director, Lawyers Title Company; Chairman, New York State Society of Real Estate Appraisers; Director and Vice President, Queensboro Chamber of Commerce; Past President, The Real Estate Association of the State of New York; member and Past President, Long Island Real Estate Board; member, Brooklyn Real Estate Board; member, Real Estate Board of New York; professional territory covers Long Island; twenty-one years' experience in the real estate field; seventeen years' experience in real estate management, including all types of properties.

FRED H. BROAD,
Canton, Ohio.

Born, Lynn, Massachusetts, May, 1902; associated with The Leonard Agency Company since January, 1927; affiliate member, Society of Industrial Realtors; salesman member, The Canton Real Estate Board; professional territory covers the City of Canton and Stark County; B.S. degree, Dartmouth College, 1924; LL.B. degree, Cleveland Law

School, 1931; admitted to Ohio State Bar, 1931; completed Lecture Course of The Institute of Real Estate Management at Cleveland, 1941; fourteen years' experience in real estate management.

LAMONT H. STOFER,
Cleveland, Ohio.

Born, Cleveland, Ohio, November, 1876; associated with Steller-Carpenter-Stofer, Inc.; Director, University Center Board of Commerce; Trustee, Apartment House Owners Association; associate member, Cleveland Real Estate Board; professional territory covers Cleveland; completed Lecture Course of The Institute of Real Estate Management at Cleveland, 1941; thirty-three years' experience in real estate management; with twenty-seven years as Real Estate Officer for The Union Trust Company of Cleveland and its predecessor The Citizens Savings and Trust Company, handling all classes of real estate in nearly every state.

WILLIAM C. CRAWFORD,
Cleveland, Ohio.

Born, Lewistown, Pennsylvania, July, 1904; Property Manager, A. D. Fraser, Inc.; Chairman, Maintenance Round Table Group, Cleveland Apartment House Owners Association; Trustee, Cleveland Hotel Association; associate member, The Cleveland Real Estate Board; professional territory covers Cleveland; attended Cleveland College; licensed Refrigeration Engineer; licensed Steam Boiler Operator in the State of Ohio; licensed Electrical Maintenance Engineer; completed Lecture Course of The Institute of Real Estate Management at Cleveland, 1941; twelve years' experience in the real estate field; ten years' experience in real estate management.

PAUL O. KEMPTON,
Canton, Ohio.

Born, Duluth, Minnesota, July, 1904; associated with The Leonard Agency Company; Past Chairman of Board, Canton Junior Chamber of Commerce; First Vice President, Canton Real Estate Board; professional territory covers the City of Canton and Stark County; completed Lecture Course of The Institute of Real Estate Management at Cleveland, 1941; six years' experience in real estate management.

ROWENA L. HAGMANN,
Erie, Pennsylvania.

Born, Edinburg, Pennsylvania, June, 1902; associated with Harry W. Hagmann, Realtor; associate member, Real Estate Board of Erie; professional territory covers Erie, Corry, and the immediately surrounding towns; attended Ohio Wesleyan University, University of Denver, and Allegheny College; completed Lecture Course of The Institute of Real Estate Management at Cleveland, Ohio, 1941; taught two years in Erie Public Schools; twelve years' experience in the real estate field; ten years' experience in real estate management.

BYRON L. CALDWELL,
Madison, Wisconsin.

Born, Rio, Wisconsin, June, 1906; Assistant Property Manager, The Stanley C. Hanks Company; associate member, Madison Board of Realtors; professional territory covers Madison and suburbs; attended School of Commerce, University of Wisconsin; completed The Fundamentals of Real Estate Practice Course of the National Association of Real Estate Boards at the University of Wisconsin Extension Division; five years' experience in real estate management.

National Officers, 1941

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I HEREBY PLEDGE MYSELF to act in strict accordance with the principles, declarations, and regulations of The Institute of Real Estate Management.

I PLEDGE MYSELF in particular to place honesty and thorough work above all else in my administration of real property; to advance myself constantly in knowledge and ability through the study of literature on real estate management, the instruction of eminent teachers, the interchange of experiences with fellow Certified Property Managers, and attendance at meetings of the Institute whenever possible; to be faithful to the personal interests of my professional brothers and to seek their counsel when in doubt of my own judgment; to render willing help to my fellow Certified Property Managers; and to give my services freely to the Institute as required or desired.

MOREOVER, I PLEDGE MYSELF to shun unwarranted personal publicity and dishonest money seeking as disgraceful to our profession; to render complete, thorough, and honest service to landlord and tenant alike regardless of monetary consideration; to strive assiduously to build goodwill for the properties under my charge and to use my best talents at all times to preserve and maintain the value of such properties; to secure the greatest possible net return to the owners of properties entrusted to my management; and to give devoted attention to the safety and comfort of tenants of these properties.

FINALLY, I PLEDGE MYSELF to cooperate in advancing and extending, by every lawful means within my power, the influence of The Institute of Real Estate Management.

The Institute of Real Estate Management
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Certified Property Managers

The Institute of Real Estate Management

The following Individual Members of The Institute of Real Estate Management are certified by the Institute as having met its professional standards of competency, integrity, and experience. The figures in parenthesis following the names indicate the order in which Certificates were issued. This roster is complete as of June 1, 1941.

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R. Raymond Smith (343) ..... 105 Fourth Ave.

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Albert R. Walker (393).....214 Park Ave.

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Edmund D. Cook (173).....176 Nassau St.

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S. William Walstrum (174).....
201 E. Ridgewood Ave.

Rutherford
Ellwood S. New (421).....6 Ames Ave.

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Frederic L. Wolf (336)....130 S. Orange Ave.

Teaneck
Alexander Summer (47).....241 Cedar Lane
Herman J. Tulp (175).....339 Cedar Lane

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H. S. Kline (176).....520 Trenton Tr. Bldg.

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Walter E. Hudson (317)....25 Westwood Ave.

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Albert R. Mencone (377).....
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Harry A. Moehring (378).....
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Maurice R. Spear (183).....225 Fifth Ave.
F. Durand Taylor (274).....93 Worth St.

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Frank S. O'Hara (437).....40-10 82nd St.

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72 Garth Rd., Scarsdale
Harry D. Cole (180).....
1 Stevens Ave., Mount Vernon

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119 Main St., E.

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L. T. Eagan (337).....
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Donald T. Pomeroy (184)..327 Montgomery St.

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Paul O. Kempton (439)..700 Harter Bk. Bldg.

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L. V. DuBois (84).....
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Lewis A. White (50)....Seventh & Walnut Sts.

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25 New Zimmerman Bldg.

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LaMar H. Wright (361).....121 E. Third St.

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200 Wilcox Bldg.
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803 American Bank Bldg.
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Ben Schlossberg, Inc.,
Ben Schlossberg.....896 Bergen Ave.
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D. E. C. Somers.....700 Bergen Ave.

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Merchantville
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Harry A. Willson....Cove Rd. & Wayne Ave.

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Abeles, Stevens, Inc.,
Edward B. McCaffrey.....605 Broad St.
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